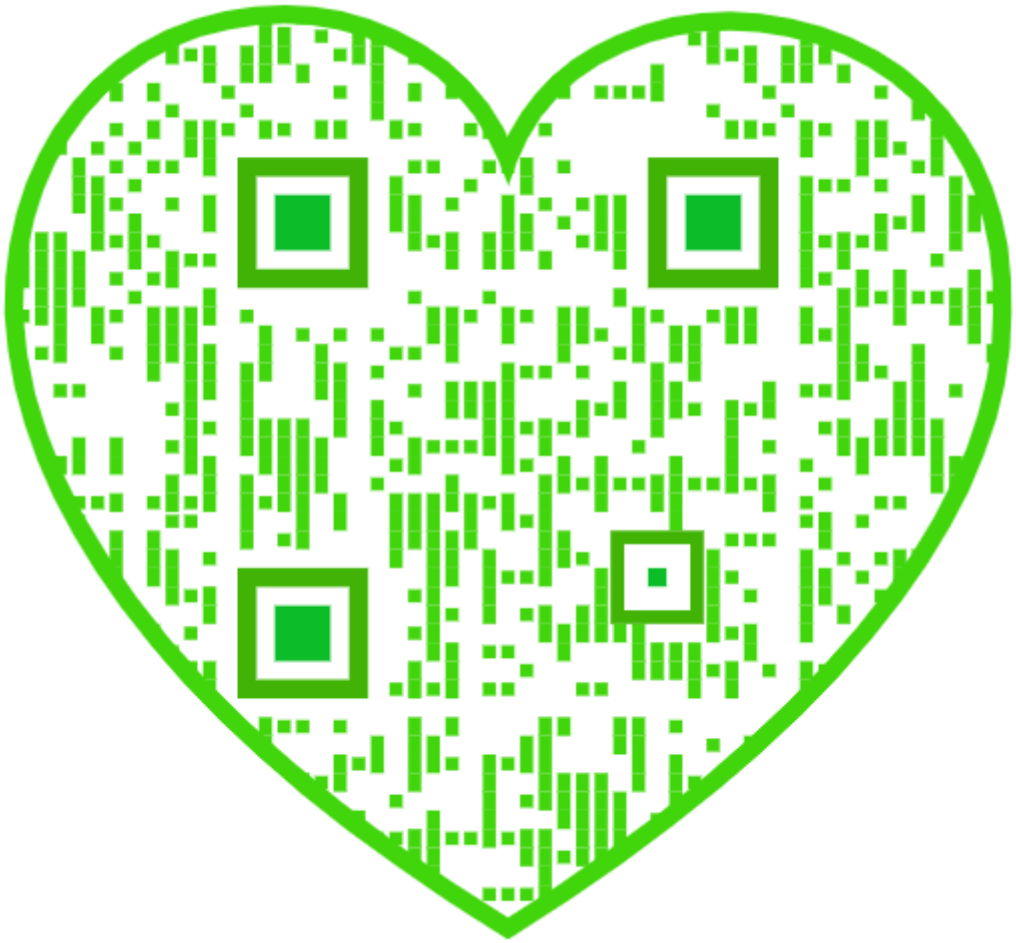
The Care and Management of Rabbits

Chesla C. Sherlock



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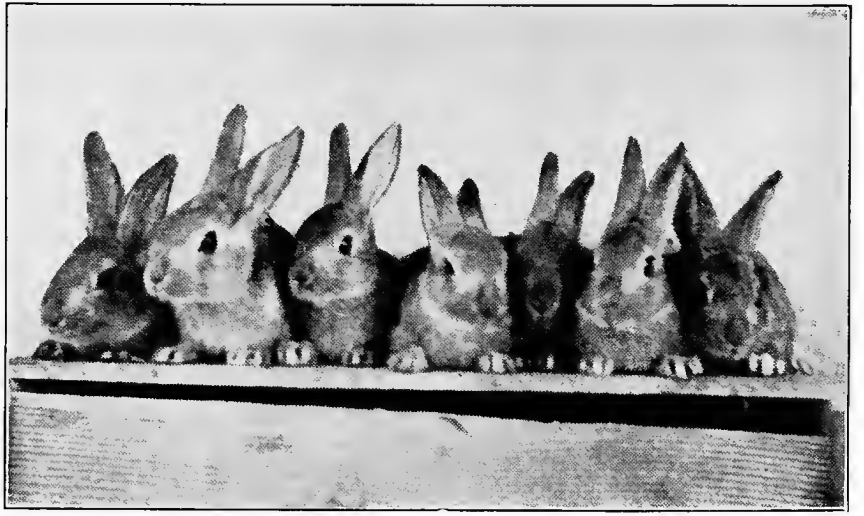

THESE SEVEN YOUNGSTERS AVERAGED TWO POUNDS EACH AT SEVEN WEEKS.

CARE AND MANAGEMENT OF RABBITS

BY
CHESLA C. SHERLOCK

PHILADELPHIA
DAVID McKAY COMPANY, PUBLISHERS
604–608 SOUTH WASHINGTON SQUARE

PRINTED IN THE UNITED STATES OF AMERICA

To

LITTLE MARILEE

WHO SO LOVES HER "BUNNY"

AND TO

"BUNNY"

WHO FROLICS WITH HER ON THE LAWN

EVERY EVENING

PREFACE

THE breeding of rabbits and the wide interest which they are attracting everywhere are one of the wonders of the present day. It is due largely to the fact that the rabbit has distinct commercial possibilities.

The purpose of this book is to tell what those possibilities are and to point out to beginner and breeder alike the most economical way to success.

The book is not intended to be an exhaustive treatise, but a handy, companionable guide on all phases of the care, breeding, and management of rabbits, whether for fancy or commerce.

Particular attention is directed to the breeding chart on page 172 which appears herewith for the first time. So far as we know it is the only line breeding chart on the market which tells at a glance the proportion of blood in

succeeding generations. It is patterned after the line-breeding system of the late I. K. Felch, veteran poultryman.

The author desires to acknowledge the debt he owes various editors and publishers for permission to use illustrations which previously accompanied matter in their publications. To Mr. B. L. Johnson, Editor, Farm Mechanics; Walter P. McGuire, Managing Editor, American Boy, and to the editors of The Country Gentleman, he makes grateful acknowledgment.

C. C. S.

TABLE OF CONTENTS

CHAPTER		PAGE
I.	Some Reasons for Raising Rabbits	7
II.	Possibilities in Rabbits	21
III.	The Domesticated Rabbit	33
IV.	The Commercial Breeds	43
V.	The Fancy Breeds	51
VI.	Getting a Start	59
VII.	The Hutches	69
VIII.	How to Build the Hutches	81
IX.	Important Considerations	99
X.	The Care of Rabbits	111
XI.	Feeding Adult Stock	121
XII.	Feeding for Market	131
XIII.	Feeding Nursing Does	139
XIV.	Feeding Young Stock	147
XV.	Selection of Breeding Stock	155
XVI.	Breeding	165
XVII.	Litters and Their Size	175
XVIII.	Weaning	181
XIX.	Utility Value of Rabbits	187
XX.	Fur Farming	193
XXI.	Preparing the Rabbit	201
XXII.	Selling Breeding Stock	215
XXIII.	Pedigrees	225
XXIV.	Diseases and Remedies	231
XXV.	Appendix	249

I

SOME REASONS FOR RAISING RABBITS

SOME REASONS FOR RAISING RABBITS

PEOPLE have been accustomed to thinking of the domesticated rabbit as a pet for so long that they are somewhat surprised to find that they have some very decided utility advantages.

The experience of the average person with rabbits is limited to a casual acquaintance with the wild cottontail or the jack rabbit of the western prairies or, perhaps, to a few "pets" kept by some youngster in the neighborhood.

We have not, in the past, paid any particular attention to the commercial possibilities in breeding rabbits in large number for the markets or for breeding purposes, largely because we did not have to. Meat, of various kinds, was comparatively cheap and within the reach of all.

We did not acquire a taste for domesticated rabbit meat and, indeed, many of us were prejudiced against it for we naturally supposed that it was similar to the meat of the wild rabbit.

As to the possibility of the rabbit's fur being worth anything, most of us again compared the domesticated rabbit to the wild rabbit and formed the conclusion that the pelt was worthless.

Certain rabbit breeders, possibly not over a dozen in the whole country, who loved the rabbit and believed in its possibilities have spent long years of hard effort to breed their favorites up to a standard which would give them a commercial value; and when they had attained that goal, they had to spend a good many more years convincing the public that they had something worth while.

A number of years ago a great rabbit boom was staged in this country. People went crazy over night and invested large sums of money in fancy stock and equipment, only to

wake up a few mornings later and discover that the bottom had dropped out of this boom. And rightly so.

The very reasons advanced by the breeders at that time for the adoption of the rabbit into our live stock family proved their undoing. They did not hesitate to misrepresent the true situation and led people to believe that there was a tremendous demand for rabbit meat all over the country; they stooped to selling diseased stock, in order to profit from the temporary high prices, and in every way possible undermined their own work of previous years.

Those few breeders who continued to keep rabbits knew that some of the faults of the stock in those days would have to be bred out, and that the rabbit would never assume its rightful place in our live stock world as an article of commerce until it really met a need and was in a position to fill that need successfully.

The present widespread adoption of the

rabbit is not in any sense a boom. It is merely a growth which has been going on for several years. And the fact that it is assuming some of the aspects of a boom does not detract from the fact that it is a growth, steady and healthy, although tremendous when you stop to think of the number of rabbits that are being bred over the country today.

One of the most important reasons for this growth of rabbit breeding is the high cost of living and the fact that the rabbit, intelligently handled, offers a very potent factor in solving a part of that problem.

The domesticated rabbit as it is bred today is essentially a meat animal. Of the three most popular breeds, the Belgian Hare, the New Zealand Red and the Flemish Giant, all are essentially meat animals, and these three breeds range in weight at maturity from seven to twenty pounds.

Maturity is generally placed at seven to nine months, although the meat animals can be marketed as early as eight or nine weeks

of age. The rabbit is a rapid grower and very prolific and is, in fact, the only animal known to us that reproduces its own weight so rapidly.

It is possible, even when very conservative, to produce as much as 400 pounds of rabbit meat on a space of ground only 3 x 6 feet in size within one year. The rabbit does not require large houses and runs or pastures as do other forms of live stock. In fact, the domesticated rabbit is a hutch rabbit and it really does better under confinement in the proper kind of a hutch than it does where it has more liberty.

Being a rapid grower and favoring certain kinds of feed which is comparatively cheap, even under high prices for all feedstuffs, it is possible to produce a pound of rabbit meat for a very small figure. One breeder, who has made quite a success of raising rabbits entirely for meat purposes, tells me that he can produce a pound of rabbit meat as cheaply as he can produce one egg from his poultry. This

may not be possible to most breeders who are not so favorably situated, but it is an indication worth mentioning. Many breeders place the exact cost of producing a pound of rabbit meat at six cents under existing high prices of feed, so many in fact that it has come to be almost an accepted figure among commercial breeders.

The rabbit, unlike poultry, does not need concentrated foods which are always leading the market in price. It requires more roughage in the way of good hay than it does of grain. It does not need corn or wheat at all, oats being the staple grain in the rabbit's ration. Oats, with hay and some green vegetable matter are the principal articles of diet. Some mashes may be used which will even tend to cheapen the cost of feeding the herd.

These facts are largely responsible for the strong position which the rabbit has won in recent years. People are becoming more and more attached to rabbit raising, as they realize what is essential and correct their earlier mistakes.

Rabbit raising is essentially a live stock raising proposition. It is not a fad and cannot amount to much when conducted along that line. The man who is a good farmer, especially farmers, who know what they are about in their feeding operations and who naturally understand rabbits, are the men who are making a big success with rabbit raising.

The rabbit is on such a foundation now that it will prove a money maker to the man who is able to go into the matter as a calling.

A California breeder states over his own signature that he started a few years ago with only a few animals and a few dollars in capital. Today he does a business of more than $25,000 annually. Another man who is a farmer and breeds rabbits as a side line to his farming business states that he is making a gross income of more than $500 a month from his animals. Six does produce him an annual income of $2,000.

From a profit standpoint the money to be made is unquestionably in the sale of breeding

stock, but there is a good profit in raising meat for market. In my own neighborhood rabbit meat sells for as much as 65 cents per pound dressed and it never falls below 30 cents a pound live weight. There is, of course, the necessity of building up a local demand for your meat but it is not slow in coming so long as other forms of meat continue at their high prices.

The meat of the domesticated rabbit has many things uncommon to other meat which give it good selling points. In the first place, it is of unusually fine texture, being white all over and something like the breast of a chicken, but lacking any trace of the oily substance found in fowls.

It is the most nutritious form of flesh known to science. It has been definitely established that domesticated rabbit meat is 85% pure nutrition, while beef contains only 55% nutritive value. This may be a surprise to some people, but it is another reason why people are raising rabbits.

Another factor in favor of rabbit raising everywhere, even in the cities, is that the rabbit does not create unseemly odors as some animals do, it is not noisy like poultry and certainly will not arouse the neighbors at daybreak with a wild burst of acclaim. We have heard of people offering strenuous objections to poultry, but we have yet to hear of any one objecting to the rabbit.

It is a noiseless animal. It never has anything to say and it makes no racket whatever, except to stamp its hind legs on the floor of the hutch once in a while when it thinks a stranger is near. This warning signal is promptly obeyed by the clan and they all scamper to their nest boxes and remain in hiding until the identity of the stranger has been established.

The hutches in which the rabbit is kept need not be unsightly to any place, even in the most fashionable districts. If they are properly built, they will be neat and attractive anywhere and if the fancier so desires he can make them as ornamental as possible.

Good, neat hutches, nicely painted, will add to any place.

No great amount of room is needed. Many people are keeping large numbers of rabbits in small restricted city lots. The fact that the hutches can be placed one on top of another until as many as three tiers are occupying the same space of ground goes to show that the amount of space at one's disposal is really only a small factor in raising rabbits, while it might be a serious factor if other kinds of stock were to be kept.

Where the hutches are built properly and they are cleaned out as they should be, there will be no need to worry about odors. The droppings from the rabbit come in a pellet form that is dry and easy to handle. The only disagreeable feature is the water, and if the hutches are properly constructed and bedded this will not amount to much. The droppings make an ideal lawn or garden fertilizer, even being better than sheep manure for this purpose.

Rabbits do not require a great deal of time and attention where they are properly housed

and the details as to their care have been properly worked out and systematized. They need to be fed only twice a day and many breeders feed only once a day. That can be arranged by the attendant to suit his own convenience. Where hay racks are used and large feed dishes, it is not necessary to feed more than once a day.

A few minutes' time daily will keep the rabbits in fine shape and the attendant can devote the rest of his day to something else. But the rabbits cannot be neglected and expected to thrive. They can be made a source of nuisance and disgrace to yourself and the neighborhood. They can be kept in dirty hutches and fed diseased food and you will soon be burying them by the dozen.

Where rabbits are properly kept, they will provide a means of recreation and profit to any man, regardless of where he may live or what he may do. They will be the center of interest of your neighbors, whether you live on a farm or in a village or a large city. Most people love them, and so will you.

II

POSSIBILITIES IN RABBITS

POSSIBILITIES IN RABBITS

THE acquaintance of the average individual with the rabbit family extends to the observation of the wild cotton tail or to a few domesticated "pets" for children.

It is hardly fair to judge the modern domesticated rabbit by these standards. He is an entirely different animal from the wild rabbit. He is built different, he grows different and he achieves a different purpose entirely. The wild cotton tail rarely attains a weight of more than five pounds, while a New Zealand Red doe will weigh ten pounds at the age of one year. Flemish Giants have been produced weighing as much as twenty-four pounds when matured.

The modern domesticated rabbit is a hutch bred rabbit. He is born and raised in close confinement. He would not know what to do in a park or under wild conditions. Hence,

he is better contented and a better producer in a small space. This makes it possible to house more rabbits in a given space than any other animal.

Since they are kept in small hutches, one may be placed above the other and the capacity of the ground available doubled or trebled as the case may be. A small corner near the fence, for instance, which is only five feet by six feet, will easily take care of eight hutches along a modified Sanderson plan. These eight hutches filled with good breeding stock should produce as much as eight hundred pounds of rabbit meat within the space of one year after commencing operations.

For the benefit of those who are anxious to have some figures on the possibilities of rabbits, and who belong to that class who cannot enthuse unless they see some real possibilities in the form of a good profit, I am going to suggest a few "figures" which the reader can follow to their logical conclusion.

In the first place, as an industry the rabbit business in America is still in its infancy. Some breeders have made a great deal of money in an occupation which originally was nothing but a hobby with them. This, as has been suggested before, is due largely to their business ability.

I happen to know one breeder who started about six years ago with $18 in capital and 10 breeding rabbits, as he himself states. He has at the present writing a business which brings in more than $25,000 annually. He is not the biggest breeder in the country, either. I could name half a dozen more who have a larger business. But this man is an expert in all lines of the mail order business and I think this has had a great deal to do with his success.

Rabbit breeding is a branch of the live stock business, and most of us know that the most profitable occupation on earth for the lover of the soil is live stock farming. One man may succeed with horses, another with beef cattle, another with dairy animals, and still another

may fail at all these and win out with sheep. And the man who couldn't raise farm animals might be a big success with rabbits. It's only a question of ability and business training.

I have already hinted at some of the possibilities of rabbit raising from a commercial standpoint. I do not think I have overstated the matter. Of course, there are dishonest dealers and breeders who are constantly advertising the fact that $3,500 can be made from a single pair in a year and other such absurd claims. But if the reader will not go off on a tangent and start building pipe dreams, he can generally catch these crooks at their own game.

Because the rabbit is a prolific and quick breeder these men have taken the chance to deceive people with false claims as to the real facts. Most of us knew little or nothing about the rabbit when we started out. So we believed these things until hard experience taught us the error of our ways.

The rabbit will breed five times in one year,

if permitted to do so. One can even breed them faster than that, but the oftener the rabbits are bred in the space of twelve months, the poorer the offspring. This should appeal to all thinking people as being reasonable. It is a severe drain on any animal to reproduce its kind and the oftener the strain the harder it will be on both parent and offspring.

The average litters run from five to thirteen little rabbits. The rabbit is a nursing animal and because of the inability of the mother doe to properly nurse a whole litter it is necessary to either kill off the poorest of the litter or else use nurse does. It is seldom advisable to allow a mother doe to nurse more than six youngsters and five is even better. For fine breeding stock cut each doe down to three youngsters.

This limitation means that the possibilities of the herd will be considerably less than the claims made by some advertisers who are anxious to deceive the public. It is true that litters run up to thirteen and fifteen at a

time, but it is also a fact that it is impossible for the doe to raise this many youngsters. Get that fact in mind now and keep it uppermost when you are thinking about the rabbit business.

Breeding animals that are properly raised and of pedigreed or registered parents should be worth an average of ten dollars each. If you have two litters of such stock or possibly three litters in a year, one can see that it is possible to have a cash income of about $100 per year from each breeding doe. This is, I think, a very conservative estimate and one that I have made in my own experience. If one is an especially good "hand" at the business and has exceptional stock, he can do even better.

Where the rabbits are to be produced for meat and can be fed liberally on milk until they are marketed or used on the table, litters of five and six can be raised at a time, which will increase the production of each doe, but the cash income will be cut down because an

animal sold by weight for eating purposes will not bring anything like an average of ten dollars each.

The rabbit industry is today in its infancy. I do think, however, that the possibilities will become greater and greater as time goes on and it assumes a commercial aspect. One of the large packers announced more than a year ago that as soon as the production of rabbits reached a scale where it would be possible to warrant the attempt, a market would be established and rabbit meat would be sold over the meat counters of the country along with that of other animals.

Canneries of rabbit meat have been established in two or three centers and furriers have entered the market for rabbit skins. During the season of 1918–19 one fur house with a national reputation advertised that they would pay $1 per pound for prime rabbit pelts, and stated that they could use one million pounds more than they had received the previous season.

I might state that in the parlance of the fur trade the rabbit is known as "coney." If you have been offered coney fur at any time, you may know that it was rabbit fur. The fur is made into hats, muffs, gloves and mittens, decorations for dresses, coats, and collars, and used in lining coats. In short, rabbit fur is rapidly taking the place of more expensive pelts as the other fur-bearing animals have disappeared from our forests and streams.

The man who is raising rabbits for meat can, in the proper season, market the pelt and have an additional income. During the summer the skin can be saved and sold to dealers who in turn sell it to tanneries where it is tanned and used for gloves, or to glue manufacturers who use it in manufacturing glue.

In this connection it is well to remember that the pelt of the domesticated rabbit is entirely different from that of the wild cotton tail. The wild rabbit has a pelt that is very thin and tears easily. It has practically no commercial value whatever. The pelt of the

domesticated rabbit, however, is heavy and tough, largely because the domesticated rabbit has been bred expressly for a good pelt.

In fact, Flemish Giant pelts have been used for lap robes and fur rugs. If they are a success for such rough usage one may gather an idea as to just how heavy and desirable the pelt of the domesticated rabbit really is.

But the main thought in these remarks is to warn the beginner in the rabbit business as to the advertising claims made by certain dishonest dealers and hucksters, most of whom do not breed rabbits themselves, but merely handle them for the money that is in them. To be led astray by these claims is to discourage and disappoint many of the people who might otherwise be happy with a few hutches. And it is a rank injustice to the rabbit industry.

The rabbit is a noble animal and one that will perform in wonderful fashion for any lover of them. And because of this very fact, advantage is taken of them to "bleed the suckers," as the expression goes.

III

THE DOMESTICATED RABBIT

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THE domesticated rabbit has been bred for more than one hundred years in an extensive fashion. It has centered largely in Belgium and other Continental countries of Europe. Germany produced a variety of large rabbits having a white pelt dotted with black spots. This rabbit was an offshoot from the old Belgian giant.

It seems that most of the breeds coming from Europe have originated from the Belgian hare which, in fact, is not a hare at all but a rabbit. It takes its name from the fact that the breeders in England attempted and partially succeeded in breeding the Belgian rabbit to such a state that it closely resembled the wild English hare. Hence the name.

About thirty years ago there was a tremendous craze over the Belgian hare in this country. It swept the nation like a forest fire.

People everywhere invested large sums of money in breeding stock, all expecting to get rich overnight.

But it soon fell down. People discovered that the Belgian hare of those days was a very delicate animal and that it was subject to many diseases. It had been inbred so long in order to produce show animals that its vitality was nearly gone. Then, again, ignorance as to the manner in which it should be cared for led many breeders to disaster.

In the meantime those who naturally loved rabbits and kept a few for hobby sake, persisted in raising them. They managed to market a few for pets for children.

Others breeds were from time to time discovered by fanciers. From Asia we got the Himalayan rabbit, a little fellow of pure white with black ears and nose. He was so small that he did not make a strong commercial appeal, but he was quite a rabbit for fancy purposes and for fur.

From Holland came the Dutch family.

There are about three varieties of these fellows due to the laws of breeding and they are divided entirely according to color.

But the most important development in the history of the domesticated rabbit came with the introduction in 1912 of the New Zealand Red to the fanciers of this country. This rabbit was brought to the Pacific Coast by sailors who had gotten them in New Zealand. They were the natural wild rabbit of that country and had been so desirable from a commercial standpoint that breeders in that country had taken them up for commercial purposes.

Our breeders soon saw the possibilities of the breed and took them up with the idea of increasing the size a trifle and in improving the color. That this has been accomplished is evidenced by the fact that the New Zealand Red is probably the most popular rabbit in existence today.

In size it is about half way between the trim little Belgian hare and the large and imposing Flemish Giant. It has a standard weight of

nine and ten pounds at maturity, which is twelve months. It is a rapid grower, breeds true to color, has a reddish buff color, which is always popular with fanciers.

The important thing to note about the domesticated rabbit is that it is a decidedly different animal from the wild cotton tail or the jack rabbit, which most of us are more or less familiar with.

It is a made rabbit in many respects. The New Zealand Red is probably the only rabbit extensively bred at the present time, both for commercial purposes and for show purposes, that breeds exactly true to color and shape. This is because it is not the result of breeding as is the case of the Flemish Giants and the Belgian hares.

The domesticated rabbit, being an entirely different animal from all other rabbits with which most of us are familiar, naturally requires different attention and care. And unless this fact is kept in mind and it is handled intelligently there is slight chance of success.

The domesticated rabbit compares well with sheep as to its likes and dislikes. It eats about the same ration, loves quiet and freedom from disturbance. It does not, however, require a large run or pasturage, and the green element in the ration should be considerably less than generally supposed. In fact, most successful breeders feed very sparingly of green food and give it only as a sort of tonic to the heavy grain and hay ration.

The domesticated rabbit is a very clean animal, if given the opportunity to express its natural desires. It does not thrive in filth and likes to have a clean hutch, sweet air to breathe and good clean food to eat.

It is not the puny animal that many people suppose. It is subject to many diseases, all of which are traced either to poor housing conditions or to improper feeding. I do not know of a single other disease that can be traced to any other quarter. The domesticated rabbit is naturally a hardy fellow if he is bred right. It will thrive equally well in the coldest climate.

I have kept rabbits during the winter in open hutches and not had the slightest trouble with them. It isn't the coldness of the atmosphere that causes the trouble; it is the dampness.

The hutch rabbit must be kept free from dampness and if you can keep the hutches clean and dry you have won more than half of the battle. The other part consists in feeding intelligently and wisely.

The domesticated rabbit likes a ration of clover or alfalfa hay, whole oats, hard bread and milk occasionally, root crops such as carrots, lettuce and green food, loves dandelions and chicory or ordinary grass clippings. That is about the extent of the variety of feed it requires.

By feeding mashes and special combinations as recommended in a later chapter, the cost of feeding the rabbit can be materially reduced and it is in this sort of feeding that the rabbit makes its greatest gains.

It needs and demands thorough and systematic care. It should not only be fed prop-

erly, but it should be fed with regularity. It is regularity that gives it the greatest gains. Haphazard feeding at irregular intervals will not produce any exceptional success. But since the rabbit, like the horse, will eat at all hours of the night, the busy business man can feed them when he comes home from work, even if it happens to be after dark.

Only two feedings a day are required, morning and night and since any man can care for two dozen rabbits in about fifteen minutes morning and night, there is no reason why the business man or woman should hesitate to breed rabbits because of lack of time to take care of them.

It isn't the time spent on them that counts so much as it is the thoroughness and the promptness of the care given. But where they are only half taken care of, more time is necessary in the end than if the work was done properly from the start.

The hutches should be cleaned out every morning, if they have solid floors and sawdust

sprinkled over the floor to absorb the moisture. Once a week the inside of the hutches should be sprayed with a good rabbit disinfectant to kill such germs as may be lurking there. This could be done Saturday afternoons or Sunday mornings.

The domesticated rabbit, once he is understood, should appeal to all busy people as the one animal that can be kept with the minimum of effort and attention, provided the details are correct as to housing and feeding in the beginning.

And because he is a profitable animal and a clean animal, a thing of beauty as well as of commercial value, is the large reason he has won more than 900,000 friends in the past two years, for the recent statistics of a breeding association shows that more than that number of people are now breeding the domesticated rabbit.

IV

THE COMMERCIAL BREEDS

THE COMMERCIAL BREEDS

WHILE there are many breeds of the domesticated rabbit there are only three which have a distinct commercial appeal. These are the Flemish Giant, the New Zealand Red and the Belgian hare. They are named in the order of their size, the Flemish Giant being the largest at maturity.

The Flemish Giant originally came from a large rabbit known as the Patagonian giant. This rabbit was a giant in every sense of the word in his native state, but being bred down for various purposes, the Flemish has sacrificed something in size and weight. The natural Flemish is a sandy gray color, while the fancy breeds which have sprung up from it are known as Steel Gray, Dark Steel Gray and Black. There are many shades and colors in one litter. Oftentimes they come pure white. This failure to breed true to color is due to the fact that

many breeds have been crossed with the sandy giant in order to work out color combinations for various show purposes.

The Flemish Giant should not weigh less than 13 pounds and the breeders at the present time are working to make it weigh as much over 15 pounds as possible. Some specimens have been entered in shows which weighed as much as 22 pounds each and it is not unlikely that even heavier weights will soon be reached.

Because of his great size the Flemish Giant is a large boned animal and more or less slow in developing. This is not to be taken as a drawback but a natural fact which cannot be escaped. He could not be a quick grower and retain his natural vitality.

He is, however, subjected to much criticism because of this very fact. At ideal market age, he has more bone than any other animal and even though he does weigh more than other commercial breeds it is doubtful if he has as much meat on him. This is because Nature has been giving first attention to the develop-

ment of a heavy frame and he has not produced meat first, as the smaller breeds, having less frame to grow, will do.

For heavy animals, however, to be marketed at maturity for meat there is no doubt but that the Flemish Giant will be the meat breed of the future, especially when there is an established meat market for the rabbits over the country. It is in every sense the Hereford of the rabbit family.

The New Zealand Red has already been mentioned in previous chapters. It came originally from New Zealand where it had been extensively bred for commercial purposes.

This rabbit is hailed at the present time as the ideal commercial rabbit, because it is of medium weight, quick maturing and has more meat at marketing age than any other breed. Having less waste in the form of bone, it would naturally appeal to all householders who desired to buy young rabbit frys.

At maturity the does weigh ten pounds and the bucks nine pounds, according to the Stan-

dard for the breed. The youngsters are hardy, quick maturing and will easily dress one pound for each month of their age up to six months. I rarely find one that will not beat this record by a long ways. They are of a delicious flavor and texture, having white meat all over, similar to the breast of a chicken. There isn't a single rabbit of the domesticated breeds that has dark meat.

The Belgian hare is the smallest of the commercial breeds. It should weigh eight pounds or under. For years it was bred more for appearance and style, it being thought highly ideal to have as small and trim an animal as possible. It springs from the same source as the Flemish Giant, but the English breeders sacrificed its splendid commercial possibilities in order to make a show animal of it.

It is long and racy in appearance and is not quite so chunky and solid as the New Zealand Red, but it makes a splendid commercial animal when bred for that purpose. It is a quick grower and takes on weight readily and if

properly handled will make as good a commercial rabbit as any that can be bred.

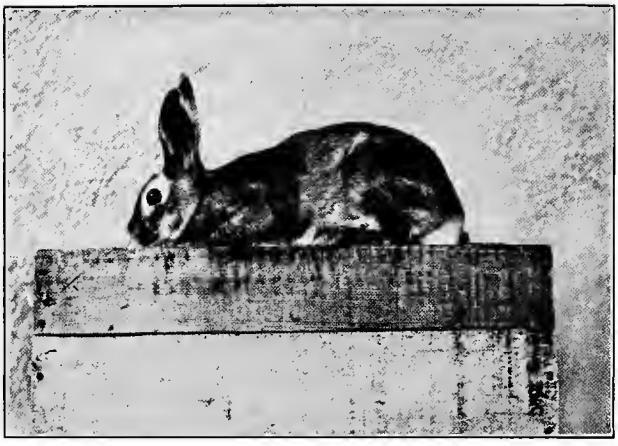
It has a good quality of flesh, fine texture and flavor and because of its great popularity is in demand everywhere. In fact, the Belgian craze of a generation ago so well advertised it that many people today suppose that all rabbits bred in hutches are Belgian hares.

In picking a commercial rabbit, it is not wise to let sentiment rule your reason. If the enterprise is to be for meat, pick a breed that will mature fast and bring you more at market age than any other. If you are breeding for both meat and for fancy purposes, it is well to choose a breed that combines these qualities as much as possible.

And, in the end, it isn't the breed that counts for so much after all, as it is the strain and the breeding vitality back of the animals you choose. It is the individual and not the breed that counts in the long run.

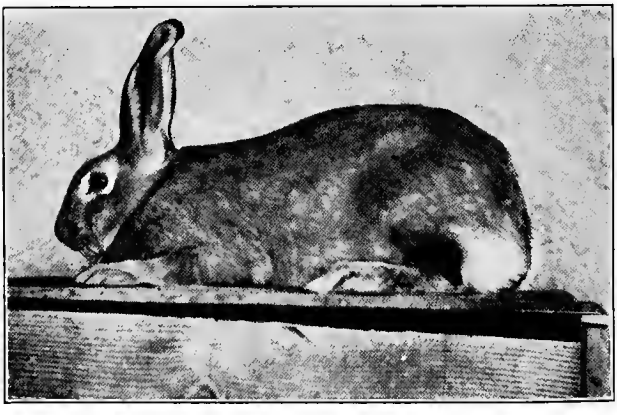
V

THE FANCY BREEDS



THREE MONTHS OLD; PROPER FRYING AGE.

New Zealand Red.



NEW ZEALAND RED DOE AGED SEVEN MONTHS.

Weight, nine pounds.

THE FANCY BREEDS

It is not possible, in a discussion of this nature, to enumerate all of the breeds of domesticated rabbits and describe them in detail. Such an effort would require a volume in itself. Those breeds included under this heading are only those which do not have any ordinary value for eating purposes. Of course, many of the breeds which we mention under this classification have a value for sale as breeding animals and for fur. In fact there is hardly a domesticated rabbit that does not have some commercial value.

The American Spotted Giant, formerly called the German Checkered Giant, is a large white rabbit with black spots and markings. The bucks weigh 11 pounds or more and the does 13 pounds or over. This rabbit may have a commercial value for meat purposes, but it has not been bred extensively for that purpose as yet.

It is a very beautiful rabbit and has a very strong pelt, which makes wonderful furs. Some of the ermine you see in fashionable windows is nothing but the pelt of this rabbit. Good breeding specimens are in great demand and bring a good price on the market. I know of several sales for $50 each and do not doubt but that others have brought more than that.

The White Giant is a large rabbit of pure white color. It is likewise more or less of a fur animal, although it makes an excellent show animal. It is, of course, hard to keep clean and free from hutch stains, but it makes it all the more valuable for the purposes indicated when this is done.

The Black Giant is similar to the White Giant with the exception that it is as pure black as it is possible to breed an animal. It, of course, has a commercial value for meat, but the objections mentioned as to the other Giants applies to it equally well. Black giants are very popular in the show room and bring good prices for breeding stock. The fur is also

in demand and commands a good price, although not as yet sufficient to warrant their production for the pelt alone.

The New Zealand Red and the Belgian hare are by no means strictly commercial animals. They are the most popular of all in the show room and command excellent prices for this purpose. Good breeding stock is in constant demand at good prices.

The Angora rabbit is distinctively a fancy rabbit. It is small, rounded in shape and has long fur, so long that it gives the rabbit the appearance of being a round ball of silky white fur. This rabbit is probably the most popular of the fancy rabbits at the present time. Like the Angora cats and goats it takes its name from the long, silky hair in the fur. The fur on these animals should be five inches long at four months of age.

The Himalayan is a little aristocrat being pure white with the exception of ears, feet, and tip of nose. It makes an ideal fur rabbit for smaller furs and when made they greatly re-

semble that made from ermine. The size of the pelt is very similar to that of ermine, hence the ability of furriers to deceive the public.

The Dutch rabbit comes in three colors, black, tortoise, and blue. It is a small, compact rabbit and has a wide white belt running around the body in stripe fashion. They are very popular for fancy purposes, as well as being good to eat.

The English Spotted Rabbit is very similar to the American Spotted only it is smaller, more compact in shape and has a wider application of black spots than is true in the American or German giant.

Among the distinctive fancy breeds there is none more curious than the Lops. They are rabbits with huge ears, it being deemed the height of perfection to breed them with the largest ears possible. The ears are often so large that the rabbit has to keep its head on the floor of its hutch all the time in order to handle them. Some have been shown with ears 26 inches long and nearly 7 inches wide.

There are many imported fancy rabbits, such as the Black and Tan, the Silvers from France, and the various shades of the Silvers.

The American Blue is comparatively new in this country. It seems to be an excellent rabbit and to have a future before it. The color is a slaty blue and it makes an excellent fur. Some of the "French" blue fox furs one sees are nothing but the pelt of this rabbit made up in fox shape.

The Polish is a small rabbit, pure white in color and greatly admired by the fanciers. It likewise has a fur value, but its small size is a handicap in this direction.

There are also varieties of fancy rabbits coming from Japan and the Far East. In fact, new varieties and breeds seem to be springing up from every quarter of the globe.

It is not attempted to give any extended information upon the subject of distinctively fancy breeds and points. If the beginner wants to become a real fancier he will have to learn the essence of the care and breeding of

rabbits as set down elsewhere in this book, and by that time he will be joining his specialty club of breeders and be learning the points in the Standard as set down for that breed.

There is no education better than that of observation in the matter of learning how to take care of the domesticated rabbit. For that reason it is advisable to attend the rabbit shows in the community even though you are not interested in the fancy side of the industry. If you expect to sell animals for breeding purposes you will have to be up on the points recognized in the Standard and pay more or less attention to what the other breeders are doing.

So it is advisable to follow the shows in your community with interest and there is no doubt but that the rabbit breeder will profit thereby, even though he may not in fact care for the fancy rabbits at all.

VI

GETTING A START

GETTING A START

THERE isn't much choice in how to get a start with rabbits. One has to get the stock and start out that way. With poultry it is possible to start with old stock, baby chicks or hatching eggs, but such is not possible in the case of rabbits.

One either has to get the matured breeding stock or else buy young stock after they have been weaned and keep them until they have attained sufficient size to breed.

As to the breed which should be kept, that is a matter for the individual to decide for himself. While sentiment may not always be best for the pocket book, it is a true statement to say that unless you are interested in rabbits do not keep them. It is better never to begin at all than to go about it in a half-hearted manner.

And if you are not interested in a particular breed do not start with the breed you don't

like. We all have our whims as to type and color and since there are so many breeds answering every purpose and desire, there is no reason why we should not have the stock that not only interests us but appeals to us as well.

There are two or three ways which one can adopt in getting a start. Young rabbits can be purchased from breeders when about three to five months for considerably less than they would cost when matured. Generally it is possible to get a good pair or trio of young stock for about half what the same animals would sell for if matured.

Of course, this will involve a wait of several months before you can get any returns from the stock in the way of youngsters, but the wait will be worth while in more ways than one.

It will give the beginner a chance to get acquainted with the rabbits and often an opportunity to prevent serious mistakes that would have cost him a lot of money had he started out with a large herd of matured animals.

You have an opportunity to get acquainted with the habits of the stock, what they like to eat, just what sort of care seems to produce the best results, and to acquire that confidence in yourself as a feeder that is so necessary for success. No matter how much you read about the care of rabbits there is nothing that equals experience, even if for a few months.

The start can be made by purchasing a doe of breeding age and have her bred to a good buck by the breeder from whom you make the purchase. This will give you a litter in thirty days at a very cheap figure and you can later have the doe bred to another buck and in this way start two strains for a very small outlay of cash. Buying a breeding age doe will probably be more expensive than buying small stock because of the value and scarcity of the does, but it will save about a year's time in the matter of getting immediate returns.

Where possible, it is best to buy either a pair or a trio of breeding age animals. This will give you returns at once and you will be in

a position to get returns without the delay necessary where the start is made under any other method.

The ideal way to make the start is to buy two unrelated pairs of breeding age animals. This will enable you to start two distinct and unrelated strains and cross breed them for more than eighteen generations without inbreeding once. Where line breeding is to be followed, this is the only way to start, as it will give you two distinct lines and the characteristics of the two strains as shown in the parent stock will be perpetuated forever in the offspring.

It is necessary to be very careful in the matter of buying stock. We have already hinted at the operations of the dishonest dealer and sharper who is not a producer of blooded stock, merely a dealer, and who does not hesitate to do anything short of murder to get your money.

There is really only one way to be safe in buying stock and that is to go to recognized

breeders and pay them the price they ask for their best stock. This stock will be pedigreed and by paying an additional dollar you can have it registered in the breed book of your breed. This will give you something of a line on its ancestry.

If your stock is not good enough to be registered, do not buy it, for it is poor policy to start out with such stock. The fact that it has been refused registration shows that it is not Standard in some particular. Breeding from such stock would be worse than folly.

Do not fall into the error of supposing that a pedigree is evidence of quality. It may be and it may not, for even the best thoroughbreds sometimes throw scrubs. Every one should know that. The pedigree is valuable only in giving you a line on the ancestry behind the animal, for blood lines are far more important, everything else being equal, than the individual specimen.

Stock should not be purchased unless safe delivery is guaranteed by the breeder and the

right to return the stock is accorded if not satisfactory. A breeder who will not give you this right proclaims himself to be dishonest from the start or to have diseased stock, or both.

As soon as the rabbits arrive take them to some one in the community who knows something about good stock and have him pass on them, particularly some one who knows the breed you have bought.

If your rabbits sneeze and there is a white discharge in the nose or they wheeze when breathing, put them in the crate and send them back. They are too dear at any price in this condition no matter how nice a coat they may be wearing or how "cute" they are; likewise if they have crooked tails, feet, or if the hair on the inside of the front feet is matted and rumpled up. These are "weather signs" which all experienced breeders recognize at first sight, but which sometimes get by the novice and beginner.

But do not be unreasonable in your expectations. Remember that a railroad journey is

hard on the bunnies; they always lose some weight on such a journey and will often look poor and scrawny and have rumpled coats when they arrive after a long journey. If they are otherwise healthy, a couple of weeks' rest and good feeding will put them back in good condition.

VII

THE HUTCHES

THE HUTCHES

A HUTCH is the quarters sufficient for one adult rabbit. They vary in size according to the breed to be kept. Small rabbits will thrive in smaller hutches than some of the larger breeds. Giants, for instance, could hardly turn around in a substantial hutch for the Polish or Dutch families.

For general purposes, it has been found that the ideal size hutch for a rabbit is one that is slightly longer than it is wide. The actual dimensions are not so important as the manner in which it is built and the general plan.

The hutch must be kept clean and free from dampness. If the general plan is such that this will be impossible, it would be better to change your plan of building before it is too late, as dampness is fatal to success with rabbits.

Under improper conditions, the rabbit is easily susceptible to colds, so the hutch must

be well built in order to prevent the possibility of draughts blowing in upon him. This does not mean that fresh air should be shut off entirely from him. As a matter of fact, one whole side of the hutch should be left open and covered with wire mesh. The rabbit must have fresh air and lots of it; what does the damage is where there are cracks in all sides of the hutch which permit the cold air to blow in upon him at all times.

Do not fall into the error of trying to build a hutch that is more of a freak and a fad than a practical utensil. Have things for the comfort of the stock first and for the ornamentation and edification of the attendant second. This, in turn, does not mean that your hutches cannot be ornamental and designed for beauty. I think that if you will look over the illustrations and the plans submitted herewith for practical hutches for the back yard you will agree with me that they are not unsightly and a disgrace to any yard. What I refer to are the faddist hutches one sees so often on the

premises of people who seem to have no idea at all that rabbits must be kept dry and comfortable and not in manure piles or in the accumulated seepage of a week's droppings.

The position for the hutches is something that is worthy of a great deal of consideration. It took me a long time to learn that the direction for the hutches to face was the East. Fewer storms come from that direction, if one lives in the Middle West, than from any other, and during the heat of the day the interior of the hutches will have more shade than if they were to face the South or West, for instance.

The rabbit, it must be remembered, is a fur-bearing animal, hence must have some thought and attention during the hot days of summer, especially if the thermometer habitually climbs to a high figure.

While some shade over the hutches is desirable, it is not best to put the hutches in a shady place. They are apt to be damp most of the time. In my own experience, I have found it best to build hutches with plenty of clearance

between the roof and the top of the hutches so that there would be a complete circulation of air at all times; also to build them with a wide over-hanging roof, so that the interior of the hutch will be largely shaded and protected from beating storms.

Of course, where a double row of hutches are used under the same roof, that is, back to back, as in the Sanderson and other hutches, it is best to face one hutch to the South and the other to the North. Where the roof is wide and overhanging most of the objections to a southern exposure can be overcome.

The hutches should always be at least six inches off the ground in order to prevent them getting damp, as would be the case if they rested flat on the ground.

Where dogs are apt to prove a nuisance, and believe me they will do that if there are any in your neighborhood, it is better to place them at least two feet above the ground, by using 2 x 4 supports. If you can place them higher, so much the better. This only makes them

easier to take care of, as the attendant does not have to stoop so far to get into the interior of the hutch and the measure of additional protection afforded will certainly pay for the extra expense.

There is nothing that can offer the discouragement that a raid from some neighbor's dogs can. In my own case I have had as many as twenty-five fine, husky, pedigreed and registered rabbits in the back yard, all worth at least $10 each, many of which I had refused to sell at any price, destroyed in one raid in just one evening's absence from home. The dogs never eat the bunnies—just seem to hunt them for the sport (?) there is in it. But Experience keeps a dear school, and I soon learned to stop this nuisance by building the hutches right and by taking other precautions which will be mentioned later in this book.

Build your hutches of good lumber. This does not necessarily mean that it must be the most expensive lumber that you can find. It may be second-hand lumber. The point is that

it must be free from knot holes and cracks, as you want an air-tight hutch if possible, one that the wind won't blow through.

The lumber to be used in making doors and frames should preferably be cypress, as it will not split when a nail is driven into it. In this way they can be made strong and serviceable and will be more apt to withstand the attacks of enemies than that made of flimsy lumber full of splits and cracks.

A good grade of pine ship-lap will do nicely for the hutches and floors, although some people seem to prefer to use flooring. There is no need to do this unless you have a pocket full of money to spend, as flooring is about three or four times as expensive as the ordinary ship-lap would be.

If you have to use the cheaper grade of lumber, or old lumber that is cracked and full of knot holes, it can be covered with tar paper or rubberoid and the draughts and other disadvantages eliminated in this way. A good thing to do, if you want to make the sides of

your hutches ornamental, is to cover the old lumber with shingles and stain them to conform to the surroundings.

But whatever the style of your hutch or the purpose for which it is intended, keep these facts in mind:

In the first place, it must be comfortable. That means that it is of the proper size, that it is as nearly air-tight as it is possible to make a hutch.

In the second place, it must conform to the laws of sanitation. It must be easily cleaned and kept clean. There is nothing so costly as a hutch that cannot be cleaned and disinfected promptly and properly at regular intervals.

In the third place, it must be free from dampness and draughts. Damp hutches are the forerunners of the dreaded "snuffles" and other kindred deadly rabbit diseases. Practise the ounce of prevention and you will never need "cures."

This brings us to a consideration of whether or not the solid floor in the hutch is the best

or whether the slat floor is the best. In the first place, I want to say that I have used both styles and that while I realize that every man has a right to his own opinion, I prefer the slat floor for the reason that it is unquestionably the most sanitary of all.

The solid floor works all right in the summer time, provided you have a good covering of sawdust and shavings on the floor to absorb the urine, and that you keep the hutches swept out at least twice a day. But in the winter, it is practically impossible to do this. The urine will freeze in the hutches and pile up in this fashion on the floor, then when things commence to thaw out you will find a nice mess in the rabbitry.

On the other hand the slat floor, which is made by placing slats at intervals of half an inch apart, as stated in the next chapter, is clean at all times, winter or summer. The droppings fall through to the ground below, where they are raked up and taken away at regular intervals. This construction in the

floor also gives the rabbits more air in the summer, affording better ventilation. In the winter, the slat floors are bedded with straw or marsh hay to a depth of about six inches. This cuts off the chances of draughts or cold winds blowing up from below and at the same time you will find that the droppings will work through the hay to a large extent and find their way to the ground below. The urine will run away before it has a chance to freeze and in this way the interior of the hutch, particularly the floor, is always dry and clean.

The solid floor always makes more work in keeping the hutches clean because all of the droppings have to be removed by the attendant himself. This makes more work, and for the busy man whose time is limited, or for the boy who has school work most of the year or who wants to keep rabbits along with work after hours, will find the slat floor a great time saver.

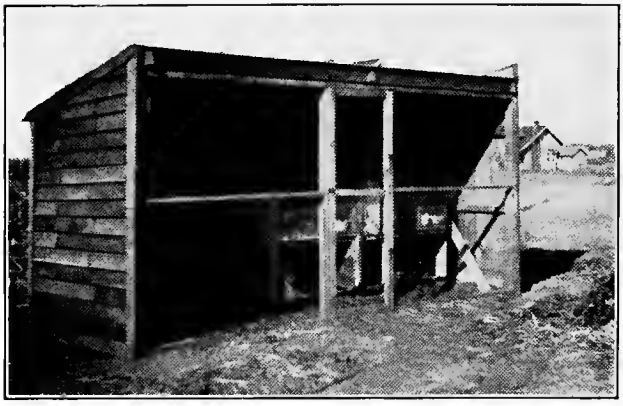
Of course, where you have your hutches one above the other in tiers, you will have to use solid floors in all hutches above the ones near-

est the ground, because the droppings would otherwise drop down to the rabbits in the hutches below.

Many overcome this difficulty by making false floors in the hutches above with slats and removable boxes similar to drawers to slide under them and catch the droppings, but this is tedious and expensive to say the least.

VIII

HOW TO BUILD THE HUTCHES



PLAN NO. I

Contains nine hutches. Plan may be adapted to any open shed or barn.

PLAN NO. II.

Four hutches, two facing front and back.

HOW TO BUILD THE HUTCHES

A THOROUGH knowledge of carpentry is not needed in order to build presentable hutches. The main point to keep in mind is to make them substantial and practical in every respect. If they are made of good material and neatly done, they will not be a discredit to your yard, even though you are not enough of a carpenter to put the little finishing touches to them that a skilful carpenter could.

Any boy who can handle a saw and a hammer can make the hutches which are illustrated herewith. There is nothing more to it than merely sawing the boards the required length and then nailing them together according to the plans given.

If you are skilful with the pencil and want to design your own hutches, there is nothing to prevent your doing so. There are, however, the facts mentioned in the preceding chapter which

must be kept in mind, if you are to get a good hutch. Further than that, the size of space required for rabbits should be kept in mind so as not to make them too small.

A nursing doe should have nine or ten square feet of floor space for herself and litter. You will find that a mature buck requires the same space because he is generally more active than the young does. So it is a good plan to build all hutches the same size and have them uniform in appearance while about it.

Younger stock will not require as much space, and they will not need more space until the sexes need separating. As a rule a litter can be kept in the hutch in which they were born until they are anyway four months of age. The young bucks will not reach fighting age until five months of age and some breeds even later than that. So there is no need of making smaller hutches than the standard size required for the mature animals, as it is only a waste of material and time.

Where one is pressed for time, an hour or two

evenings can be spent on the work in the home basement. The hutches can all be built in sections and nailed or screwed together in the place they are to occupy in a few minutes' time.

Do not build a large number of hutches until you determine just how many rabbits you want to raise and feed. It is better to commence in a small way and gradually expand until you have reached the point desired. Rabbits, you know, are entirely different from chickens. You can have five generations in one year, so it is easily possible to "make haste slowly" and still get on famously in less than a year.

Plan No. 1 shows the largest rabbitry which would be practical in the average city backyard. It is 6 by 12 feet in size and was built on the open shed style. This rabbitry has three tiers of hutches, each 2½ feet wide by 4 feet long. A nest box was built in each hutch just one foot wide, so that left an outside hutch still 3 feet long. This allowed three

hutches to the tier, making nine hutches in all. In a rabbitry of this size, one could maintain eight breeding does and one buck easily. The herd would allow a new litter every week or ten days, if one wanted to breed the does the year around and as often as possible.

The cost to build a rabbitry of this nature would vary according to the price of lumber in different localities. I might add that the studding was of 2 by 4 rafters and that the shed had double walls made of ship-lap and the outside wall was further covered with redwood siding.

The open front of the shed was covered with one inch wire mesh and fitted with a door, to permit the attendant to get inside and at the same time to keep off dogs and other enemies of the rabbits. After the picture was taken the lower half of the wire covering was reinforced by means of 1 by 2 slats which were set six inches apart all across the front of the rabbitry. This proved an effective barrier against dogs, who sometimes will go

through ordinary wire netting as a hot knife goes through butter.

While the cost was about $4 for each hutch, it was well worth the outlay of time and expense. It provided a damp-proof hutch for the winter months and still one that housed a large number of rabbits upon a small space of ground.

While some may object to the appearance of such a large rabbitry in the back yard, I wish to say in frankness that this rabbitry was not as ornamental as the others I have used. The picture was taken in the early spring months and does not show the possibilities of such a rabbitry.

In the summer flowers and vines on trellises were planted all around this rabbitry, both for shade and ornamentation, and it was not half as bare and forbidding as it looks here.

A hutch that will be much more satisfactory for the back yard fancier who wishes to keep only a few rabbits for the family table, or for the boy who wants a small number of rabbits

for spending money purposes, is contained in Plan No. 2.

This hutch was originally designed by a California breeder named Sanderson. While the hutch plan given herewith is very similar to the original hutch, the dimensions have been changed in nearly every instance in order to fit the needs of my own back yard at the time the hutch was built. It is a more compact hutch under the present plan and much neater in appearance, and has all the advantages it ever had.

It occupies a space of ground just 4 by 6 feet in size with a nest box extending over which is 18 inches wide and 4 feet long. This nest box is really too large and may be made smaller with equally good results. A smaller nest box would keep warmer in cold weather and be more desirable for that reason, as well as being less expensive to build.

The bottom of the floor is just 2 feet off the ground and the hutch itself is 18 inches high and there is a roof 6 inches higher at the peak

and extending 18 inches from the sides of the hutch. This hutch really contains four separate and distinct hutches, two being equipped with nest boxes. It is possible to provide a battery of nest boxes on the other end of the hutch and have all four hutches so equipped, but where you have a buck a nest box is not needed.

This hutch can be constructed for around $2 or $3 per hutch, that is $8 to $12 for the entire structure, according to the materials used and the price thereof in your community. It is light, easily moved, compact, easily cleaned and sanitary, and requires less labor to maintain than any hutch that we have used.

There is a center partition made of solid ship-lap lumber which divides the hutch into two compartments. These compartments are further divided by the open hay rack shown in the center of the picture. This hay rack is open and hay can be fed the rabbits without opening the doors.

The doors are on hinges so that they will

open outward and downward, and above each hay rack there is a rest shelf for the doe, to enable her to get away from the youngsters who have a continual appetite once they commence to run around in the hutch.

The other side of the hutch has the same appearance as the side shown in the picture. The floor is made of 1 by 1 slats set half an inch apart and the center partition rests on top of these slats. The floor in the nest box is made solid in order to afford plenty of protection to the youngsters in cold weather. Young rabbits, you know, are not brooded as a hen broods her chicks, so it is necessary to take every precaution to keep them warm. The mother doe will pull all of her fur off that it is possible to pull out to keep them warm, but sometimes, even then, they will freeze. The only young rabbits that I have ever lost were frozen.

Complete plans for this hutch, as well as for the others mentioned, are given herewith.

This hutch, providing as it does, four hutches,

will enable the back yard breeder to keep at least two breeding does, one buck and still have an extra hutch for the use of the growing stock. By a very conservative management the breeder should be able to keep one table supplying a family of five in no need of meat and still have several rabbits to sell frequently to pay the cost of feed and some return on the investment.

Another hutch of similar size and affording the same results as to yearly production is shown in Plan No. 3. This hutch also has four separate hutches, but it has the arrangement of having two hutches above those which are nearer the ground.

It is 3 by 6 feet in size and 4 feet 9 inches high. Each hutch is just 3 by 3 feet in size. No nest boxes are built in but the breeder will have to provide removable nest boxes about 18 inches square and 1 foot high which can be put in the hutch when occasion warrants it.

By using an awning as shown in the illustration the interior of the hutches can be shaded

from the sun and from severe rains, as the roof does not overhang in this style of hutch sufficiently to afford the necessary protection.

The doors are merely frames covered with one inch wire mesh and on hinges. The upper hutches have solid floors sloping three inches to the back to provide drainage and the floor of the two lower hutches is of slats. This affords the ideal arrangement for such a style hutch. It is probably not as ornamental as the hutch shown in Plan No. 2 and it does not occupy as much space, but where one desires a hutch of this type and size, there is no plan that can be used to better advantage.

An improvement might be made by cutting down the height, as I have found that hutches 18 inches high are just as practical as those two feet high. This would save one foot in the height of the hutch over all.

There are many other styles of hutches and rabbitries that may be built, but there is no series of general plans that will suit the fancier better.

Many people who have barns, sheds or large garages have constructed rows of hutches along one side of these buildings. While this may provide hutch room at a minimum of expense there are many reasons why this is an undesirable way to proceed.

In the first place, rabbits do not thrive in indoor rabbitries. That has been proved again and again. There is nothing that equals the outdoor hutch. The rabbit is an outdoor animal and even though he is highly domesticated that does not alter the facts. He must have fresh air and plenty of it. Where the air is poor or the rabbitry is poorly ventilated, you will find the quarters invariably damp and heavy. This breeds disease germs and in the course of time the stock will sicken and die.

It also retards the constitutional vigor of the stock and losses of the young are frequent. There is only one hutch and that is the outdoor hutch. If you want to use an old shed or barn rip out one whole side of it in order to afford this ventilation and light. The rabbit, in order

to be healthy need not be kept in the sunshine, but he must at least breathe the air on which the sun shines.

Complete Working Plans and Specifications for these Hutches.

Thayer Hutch.—Lumber:

7 pieces ½″ x 6″ x 16′ Redwood siding
9 pieces 1″ x 3″ x 12′
1 piece 2″ x 4″ x 16′ ripped rough
2 pieces 1″ x 4″ x 16′
1 piece 1″ x 10″ x 12′
6 pieces 1″ x 4″ x 14′ matched flooring
6 pieces 1″ x 3″ x 10′

Hardware:

6 pairs 2″ butts
15 lin. feet 1″ wire mesh, 18″ wide
1 pound 6d nails
1 pound 10d nails
1 pound shingle nails

Sanderson Hutch.—Lumber:

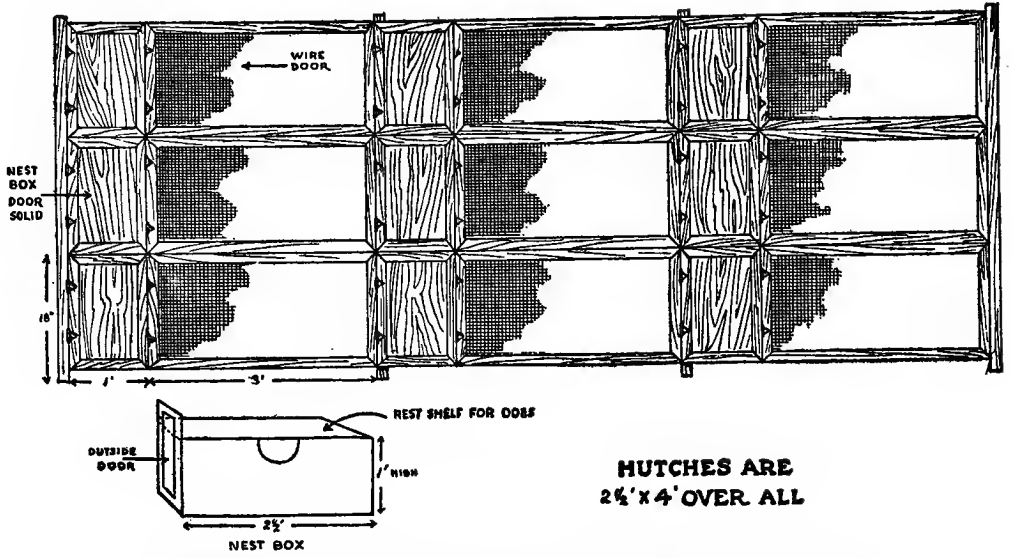
4 pieces 1″ x 8″ x 10′
2 pieces 2″ x 3″ x 12′
2 pieces 1″ x 3″ x 16′
13 pieces 1″ x 3″ x 14′
1 piece 1″ x 10″ x 19′
1 piece 1″ x 6″ x 10′
5 pieces 1″ x 2″ x 10′
2 pieces 1″ x 2″ x 14′
1 piece 1″ x 12″ x 16′
9 pieces ¾″ x 2″ x 16′

Hardware:

5 pairs 2″ x 2″ butts
16¼″ x 2¼″ carriage bolts
2 pounds 6d nails
½ square prepared roofing
24 lin. feet 1″ wire mesh, 18″ wide
116 galvanized staples

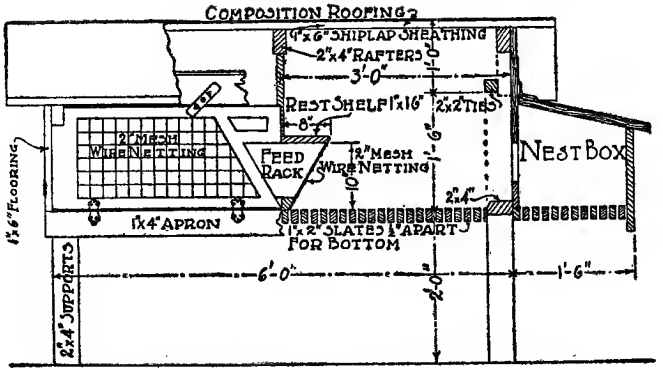
PLAN NO.1

CAN BE ADAPTED TO ANY OPEN SHED

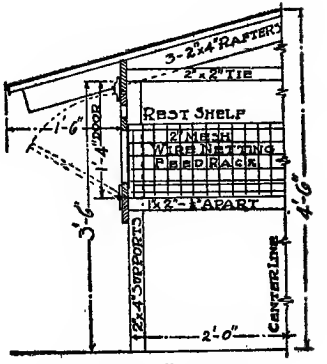


INTERIOR HUTCH ARRANGEMENT. TO BE USED IN BARNS OR OPEN SHEDS.

PLAN NO. 2

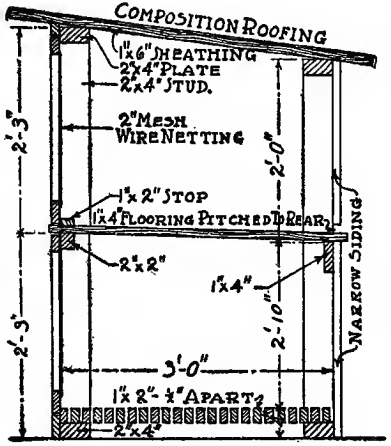


ELEV. & SECTION OF RABBIT HUTCH

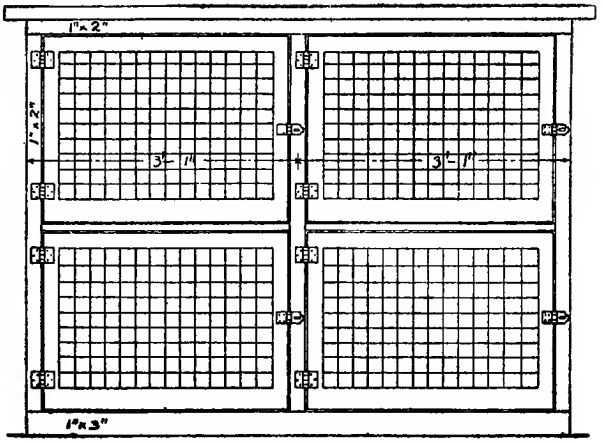


CROSS SECTION

PLAN NO. 3



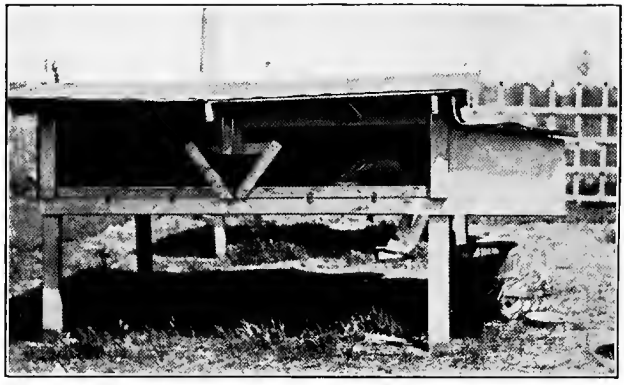
CROSS SECTION



ELEVATION OF RABBIT HUTCH

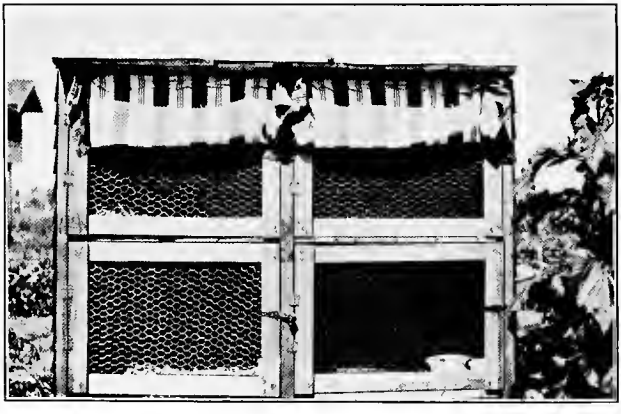
IX

IMPORTANT CONSIDERATIONS



Light, Airy Hutch for Mild Climates.

Contains four separate hutches.



Canvas Curtains Afford Shade on Hot Days.

Accommodates four breeding does.

IMPORTANT CONSIDERATIONS

THERE are a few important considerations essential to success in rabbit raising which are so vital that it was deemed advisable to put them in a separate chapter in order that the novice would not overlook them. They are also arranged in note form for handy reference in the future. They pertain to every phase of rabbit keeping.

HUTCHES. Allow nine to ten square feet of space for each adult rabbit or nursing doe.

Face the rabbitry or hutches preferably to the East as the hutches will only catch the morning sun and will not be hot during the heat of the day.

Provide muslin or canvas curtains to drop over the open side of the hutch during storms and rains in order to keep the interior dry. They can also be used when cold winds are blowing directly into the hutch. At all other

times they should be taken away, as cold alone will not hurt the animals.

Keep the hutches dry at all times. Where you have solid floors use two inches of sawdust or sand and cover this with three or four inches of good, clean straw. The bedding should be only sawdust in summer. If the weather is unusually cold, put a pile of straw in the nest box or one corner of the hutch for the rabbits to burrow in.

Keep the hutch dishes clean at all times. Water crocks should be scoured once a week the year around. Feed dishes should be similarly cleaned.

Droppings. Remove all droppings at least once a day the year around. If you have solid floors use an old hoe to scrape them clean. The droppings should not be piled up near the hutches or under it, as a certain amount of evaporation takes place which is not good for the stock to breathe. It is better to spade them into the garden soil at once, or around the flowers and shrubs, or sprinkle them over

the lawn. This is the proper solution of the problem in the winter. Rabbit droppings are even better than sheep manure for lawns.

Hay Racks. Hay racks can be built out of wire and placed in each hutch. They will save feed and prevent the rabbits soiling it as they will do if it is placed in the floor of the hutch. In the use of hay racks—they eat it only as wanted and you will soon find that the use of racks will cut your hay bills down one-third at least. There are several good racks on the market for about fifty cents each and if you do not care to make your own you will find that it is money well spent to buy them.

Feed Crocks. The best feed dish to use is the regular rabbit crock which can be procured at any seed house or supply dealer. These are glazed to make cleaning easy and they are flat enough to prevent tipping and the consequent loss of the mash or grain.

Do not use galvanized or tin dishes, as they are unsatisfactory for rabbits. They are too hard to keep clean and that is a prime necessity with rabbits.

STOCK. Start with as good stock as you can afford. It is better to put all of your money in one good doe and pay to have her bred to a good buck, rather than to scatter the purchasing power over a number of inferior animals. Remember that "like produces like" and it is never truer than in the breeding of rabbits. The better the stock you start with the better your chances of success and the greater the income you will make from them. You cannot produce fancy stock that will command a good price from scrub breeders.

DISEASE. As soon as you notice a rabbit that appears to be sickly, isolate it from the rest of the herd and keep it there until you are sure as to what is the matter with it. Most rabbit diseases are contagious and will soon spread through the whole rabbitry if not taken in hand at once.

Unless the specimen is especially valuable, it is better to kill the rabbit at once, especially if it appears to be suffering from a cold or "snuffles." This disease is treated more at

length in a subsequent chapter, but this is a point that must be kept in mind.

SANITATION. Sanitation is the preventive of most rabbit evils and diseases. Keep things clean. Your success depends upon that. And not only be clean, but disinfect the hutches at least once a week. Do not use coal tar disinfectants as they are repugnant to the rabbit's sense of smell. Use pine oil disinfectants or those having a sweet smell. Special rabbit disinfectants are to be found in every supply dealer's stock.

Disinfect thoroughly. This means getting in all corners of the hutch and nest boxes. A small spray pump can be purchased for fifty cents at any seed house and it will be worth many times its cost to you.

YOUNG STOCK. Do not disturb the newly arrived litter until the second or third day and then be very sure that the strong light does not fall directly upon them as it may cause blindness. Count the litter and destroy the small, puny ones.

If a nurse doe is to be used, remove the excess and put them with the new doe. Do it quietly and try not to excite her interest. It is best to give her a good feed of green food and she will generally not pay any attention to you.

In Buying Stock. Do not let the flashy appeals of the dishonest dealer drag you into the net that has been spread. Take all extravagant claims and inducements to make you buy with a grain of salt. The best plan is to pass up the sharper and get in direct touch with a bona fide breeder. There are plenty of these in every locality and they have built up their business by honest dealing. Seek them out.

Kindling Time. Does kindle 30 days after being bred, generally right to the hour. The nest box should be available for the doe a week before she is due and plenty of straw should be placed in the hutch in order that she may have it to build the nest. Do not have so much that she will stuff the nest box so full that she can't get into it. The doe will

make her nest all the way from a week to an hour before kindling.

If it is exceptionally cold, some light cotton batting can be used to keep the litter warm, by pulling it in small bits and placing it over the youngsters in the same manner that the doe has used her own fur.

Sawdust and Sand. Some light material such as sawdust or sand must be on hand at all times to use in keeping the floors of the hutches dry, particularly if they are solid. Such precautions will be unnecessary if you are using slat floors. Once a week, twice a week in damp weather, use a light sprinkling of air-slacked lime on the floors to dry them up and kill such disease germs as may be lurking there.

Pedigrees. In order to succeed in the breeding of rabbits for sale, it is necessary to keep a pedigree record. That is, a record of their ancestory. Pedigree blanks can be purchased in book form at any dealer's supply house. Always keep a carbon copy of all pedigrees for future reference. They will be

invaluable for your mating records and sale records.

Runways. Runways are unnecessary for rabbits. They do not need grass parks. If you put them out in a grass park they will soon dig out and get away. Where you are training young stock for show purposes, particularly Belgian hares, it is a good plan to have a long narrow hutch for them to run around in. For meat stock, however, better results are obtained by keeping them in ordinary sized hutches.

Salt. All rabbits need plenty of salt. It can be fed in the mash each day, or better still a piece of rock salt can be placed in the hutch, or regular prepared rabbit salt nailed to the side of the hutch. This will give the rabbits an opportunity to partake of it as they desire.

Dogs. At all times guard against the possibility of dogs getting near the rabbitry and destroying your herd. The author has had some heart-breaking experiences along this line.

All hutches should be protected by strong

lattice or woven wire fences, in addition to having strong mesh wire over all openings. A fence around the hutches should offer protection against ordinary dogs, but you cannot be too careful about this. Most dogs that raid the rabbitries seem to be extraordinary dogs.

I have had them pull inch boards off a rabbitry held by six inch nails. I have had them tear off doors which were bolted down on hinges and strong locks. I have had them destroy as many as twenty-one rabbits in one evening, worth about two hundred and fifty dollars.

They always appear at unexpected times, generally when you are away from home, and the fancier should not neglect to take every precaution to protect his herd and his investment. No matter how much faith you may have in your hutches, put up a protecting fence. If you do not, you will some day, much to your regret.

Keep your eye on the airedales and the big fellows. The little dogs can't do any damage if your hutches are off the ground, as they should be.

X

THE CARE OF RABBITS

THE CARE OF RABBITS

THE care which the rabbits receive has everything to do with the success of the venture. And the measure of care which must be applied cannot be understood until the fancier has an intelligent idea as to just what sort an animal the rabbit is, and what is necessary to make it produce as it should.

While housing and feeding and general care have a great deal to do with success in rabbit raising, it is not these factors alone that will determine the success of the venture.

Feeders know that some men can feed animals more than others do and are still unable to get any gains in weight out of them. Two men may feed exactly the same ration, even down to the same weights in food fed and one of them will have a tremendous success, while the other will be unable to get any gains out of his stock.

It is not the ration that governs entirely, but it is the manner in which it is used and applied to the raising of rabbits that counts.

The point we are trying to make is that regularity is what produces such wonderful results in rabbit raising, or in the feeding of any animal. Your ration must be right, of course, but the best ration in the world will not compensate for irregularity and improper care. Stock breeders who habitually bring fine specimens to the shows and fairs will tell you that regularity in the care of their animals and in the feeding of them is the secret of their success. This certainly applies to the raising of rabbits.

Be regular at all odds. If you are going to feed the rabbits when you have time, it would be better not to start raising them at all. It is not so much what you feed or how much you feed or how nicely you clean out the hutches when you do clean them that counts, as it is how regular you are about the work.

The domesticated rabbit is not the same animal as the wild rabbit, we have made that

statement before, but there is a comparison between the two that is worth noting. The wild rabbit is not as regular in his habits as the hutch rabbit under proper care. Consequently, it does not develop into the animal that the hutch rabbit does. If you do not believe this, get a couple of young wild rabbits, put them in hutches and feed them regularly along with your other stock, and when they are matured note the difference between them and their wild brothers and sisters. There will be added weight, better appearance and a more upstanding look in their eyes. The only difference has been in care and attention.

The rabbit is the last animal on earth that can be neglected. If you are going to have social parties and trips away from home or outside duties that are apt to cause you to want to "skip" the daily fifteen minutes with the rabbits at the usual time, it is better to erase the idea of keeping rabbits from your mind.

On the other hand, I would not have the would-be fancier jump to the conclusion that the rabbit is a frail animal and one that must be handled with gloves on. It is not that sort of an animal at all. It is, in fact, extremely hardy and will stand all sorts of abuse. In fact, I sometimes marvel that the rabbit continues to live at all in the hands of some people.

But I take it that the busy man or the boy who is thinking of raising a few rabbits wishes to treat them squarely and do all that he can to make a success of the venture. Hence the emphasis on the need of regular care and attention.

Rabbits require feeding only twice a day as a rule. It matters little as to just what time they are fed. They can be fed early in the morning or the last thing before the business man goes to the office or the boy leaves for school. And the evening feeding can be at any time convenient to the attendant, but the point is to feed at the same hour every

day once you get the rabbits accustomed to being fed at that time.

It takes but little to "throw them off feed" and generally it is lack of regularity that does the trick. And another point should be noted in this connection. Once you find a ration that suits your pocketbook and the rabbits, hesitate a long time before you change it and then do it very gradually. A sudden change of feed will react in the development of the rabbit.

It takes but a little time to care for them, when it is done regularly. I find it most convenient to clean out the hutches each morning before breakfast. As soon as breakfast is prepared, I leave them and then when getting ready to go to work, give them the morning feeding. This takes only a very few minutes. For a small hutch of only four compartments one could easily do this work in five to ten minutes.

They will then require no more attention until evening. Of course, where there are

nursing does, they will require a noon feeding, as mentioned elsewhere, but that can generally be arranged for. If the business man is not home at noon he can generally persuade the good wife to do it for him, or else some of the boys in the neighborhood. When a boy is running the rabbitry for spending money, he can do the work himself, if he is home for lunch. But if this is not possible, some arrangement can usually be worked out to take care of the bunnies in fine shape.

There is such little routine to the work that it is more than repaid by being regular. Then if you are a true fancier and naturally love the animals you will never find the work of caring for the rabbits a drudge or a burden. It will be a pleasure even in the most severe weather.

Women make excellent rabbit fanciers. They seem to be more regular in their habits and more thorough in the care they bestow upon them. This is one reason why the average woman is a better hand at raising chickens

or in producing flowers that bloom than a man is. So if the lady of the house once becomes interested in the project, you may be sure that she will be glad to give old mother doe a feeding now and then.

Where hay racks are provided large enough to hold a quantity of hay it is often not necessary to feed the evening ration of hay at all. Sometimes filling the rack twice a week will be sufficient. Once in a while the evening feed is changed, as noted elsewhere, but the actual work in caring for the rabbits is so slight that the man who really has the right stuff in his makeup need not worry about the time required.

XI

FEEDING ADULT STOCK

FEEDING ADULT STOCK

WE HAVE already hinted in a general way as to the sort of a ration required for rabbits. The domesticated rabbit is a very rapid grower. He is a meat animal and he must be fed in much the same manner as a beef animal. This should be kept in mind at all times.

That means that he needs a balanced ration composed of the proper elements of concentrates, roughage and succulent food. It has always seemed to me that the reason why so many people have trouble with their rabbits is that they do not take this fact into consideration. They try to feed green food alone, or grain alone or hay alone, and expect the rabbit to get along famously on such a ration.

If you stop to think that no man could live on oats alone and make a good development, you will begin to see why the rabbits cannot be expected to do something that is contrary to Nature.

Getting the results out of the herd is merely a matter of supplying the proper raw material in the form of feed, and the rabbits will convert it into meat in a more efficient manner than any animal you ever had anything to do with.

During my first summer with rabbits I fell into the error so many people do by supposing that the rabbit did not need anything but green food. I was very lucky that summer. The rabbits got along all right and seemed to grow nicely. But later in the season I found that they were under weight for their age. They had not had the proper ration.

What does the rabbit eat, is a question most frequently asked by beginners. The adult rabbit will eat almost anything that is wholesome and sweet. They like carrots, beets, whole and rolled oats, stale bread, skim milk, clover and alfalfa hay, timothy, straw, dandelions, lettuce, lawn clippings, wheat bran, alfalfa meal, in short, almost anything that it is possible for them to eat.

Feeding the adult rabbit is not a hard proposition. The rabbit has now reached its weight and proper development for its breed and all that is contemplated by the feeding is to maintain it in this condition.

Where you are feeding pregnant does, a little different arrangement as to the quantity fed is made, as does expecting a litter should be allowed to eat all that they want.

For other adult stock, however, it is best to feed them a regular allowance sufficient to maintain flesh and condition and not feed them more. To overfeed will induce bowel trouble and make the rabbits fat and flabby. No rabbit, to be desirable for show or breeding, should be allowed to get fat. They should be just well filled out for their frame.

Two and one-half ounces of whole oats per adult rabbit is the proper feeding for the morning. This is just a good double handful. If you can get rolled oats at a figure cheap enough to warrant its use it will be better for them, as there is not so much fiber as in the whole oats.

The rabbits will like a change, so every other morning alternate the feeding with a mash made by soaking whole oats over night in water. This is to soften the hulls and give the oats greater bulk. Then drain off the surplus water and add as much wheat bran as oats and then put in as much alfalfa meal. The bran and alfalfa meal is dry when mixed in with the oats and they absorb the excess moisture so that the mash is crumbly and not sloppy. Salt this mixture to taste, about a tablespoonful of salt to twenty rabbits. Give three ounces to each adult rabbit. Nursing does should have all they and the litter will eat.

If you can procure ground beet pulp add it to the mash after soaking over night. It will further balance the ration and add much to its value, besides cheapening it considerably.

The rabbits are given fresh water with each feeding and if the water crocks are dirty they should be scalded out thoroughly. Do not expect the rabbit to drink filthy water. It

will not do it because it is one of the cleanest animals in existence and it will not drink contaminated water or eat bad food unless starved to it.

No more feeding is necessary until night when a good-sized handful of clover or alfalfa hay should be given to each rabbit. It is hard to say off hand just how much each animal should have. That is a matter of the individual rabbit and of observation. The rabbit should have all that it will eat up clean in the night and no more or less.

Alfalfa hay, while a little more expensive in the Middle West and Eastern portion of the United States than any other hay, is undoubtedly the best hay to use, as it contains a better feeding value than clover, having about three times the protein content that clover has.

One summer I conducted an experiment with peanut hay as a forage for rabbits and I consider it the equal if not superior to alfalfa. If you live in the South or are where you can secure peanut hay for your rabbits,

use it by all means. It keeps them in better condition and gives a decidedly delicious flavor to the meat of the commercial stock. It is profitable to raise it for this very purpose, if you are situated so that it can be done. You will get two crops from the venture, peanuts and hay, besides adding to the fertility of your soil, as the peanut is a legume like clover and alfalfa and adds more to the soil than it takes away.

Some successful breeders only feed their stock once a day and they keep the hay before the rabbits at all times in hay racks. This is probably a desirable thing to do where the labor element is a serious problem, but it is a matter of individual preference.

Twice a week at least give the adult rabbit one large carrot for breakfast as a tonic. They like nothing better and in winter it is especially valuable in keeping the stock in condition. If you have a small garden space, you can raise enough carrots for this purpose, or a dime's worth a week should supply the

small family rabbitry with the necessary tonic. It is money well spent.

As for green food, it can be fed the adult rabbits with less likelihood of disastrous results than is true in the case of young stock.

It is better to consider the green food as merely an element in the ration. During the summer, I alternate the hay evenings with green clover, lettuce, chicory or dandelion leaves.

The dandelion makes an excellent breakfast for the rabbit on summer mornings and can take the place of the carrots which are given during the winter. Dandelions are an excellent kidney regulator and if your rabbits seem to be "off feed" or discharging "red" water, a feeding or two of dandelions will soon put them back in condition.

In feeding green food, however, some precautions must be observed. It must be fed fresh and must not be allowed to stand in a basket or pile for any length of time before feeding. It will heat and become sour and

cause you a nice lot of trouble if fed in that fashion. Feed it promptly and give only what the stock will eat up clean.

Now a word about cabbage. There seems to be an impression among beginners that cabbage is the ideal green food for rabbits, because most of us have noticed now greedily the wild cotton tail goes after the cabbage in our gardens.

The rabbit likes cabbage and will eat it greedily, but it is not desirable for the reason that it has a severe effect upon the kidneys. Furthermore it causes a terrible odor around the hutches. Lettuce, dandelions or chicory leaves are all as good as cabbage and they do not have this injurious effect upon the kidneys, so cabbage should not be fed at all, or only very sparingly at most. It is apt to throw all of your stock into diseased conditions which the beginner cannot cope with.

Feed the rabbits intelligently and do not overfeed. It hurts the rabbits and your pocketbook as well. Do all that you should in the way of feeding, but why do more?

XII

FEEDING FOR MARKET

FEEDING FOR MARKET

MARKET feeding means that the stock is intended for meat purposes, to be sold for that purpose to local markets or else to be used upon the table of the breeder. For this reason, a little different feeding is required than where the purpose is to mature breeding stock and merely keep them in good condition so long as they are used in the hutches.

The frying age, which is the best age at which to sell or use rabbits for the table, is from twelve to sixteen weeks of age. There is less waste at this stage of their development than if they are used earlier. It is possible, however, to have them on the table when they are only two months old. Keeping them longer enables the breeder to obtain full return from his feed and also to judge correctly the worth of an individual for breeding purposes. A good breeder should not go into the pot as it is a waste of time and money to do this.

The purpose in market feeding is to encourage just as rapid a growth as possible in order to get the fullest weight and development from the stock at the earliest possible moment. It is in market feeding that regularity is most important.

While it should never be advisable to attempt to force the growing stock for weight, we do not proceed along the leisurely way that we do when feeding for breeding stock. We do not limit the ration to a certain amount per day, but give the youngsters all that they can eat, just so long as it is not dangerous.

One has to be careful with the growing stock, especially right after they are weaned, that they do not get too much to eat. They are not only apt to have digestive troubles, but also to be pot-bellied, which is caused by the intestinal tract growing too fast for the rest of the body. This is generally fatal to the little fellows.

Market stock must have the mash mentioned in the preceding chapter and they

should have all that they will eat at all times. They should also have plenty of clover or alfalfa hay and must be liberally treated with good green food, either dandelions or chicory being the best.

They also need plenty of fresh water at all times, and should have a lump of hard rabbit salt in the hutch.

Do not overcrowd them, but give them sufficient room. Three or four to the hutch will be sufficient.

Keep things clean and sweet and sanitary. The heavy feeding is apt to cause some mash to be left in the dishes from time to time. Be sure that it does not remain long during hot weather, as it will sour and cause trouble. At each feeding, the mash remaining should be emptied out and thrown away, as it is not half the waste that allowing it to remain may develop into.

With market stock, it is better to cut down slightly on the amount fed in the morning and put in an extra feeding at noon. There

is nothing better for the noon feeding than skim milk and stale bread. This will cause faster development in the growing stock than almost anything else that can be given.

If you are unable to procure skim milk except at a figure too high to warrant its use it would be best to give the mash in the morning and a feeding of whole or rolled oats at noon and hay at night.

Whatever the ration you determine upon, stick to it and be regular in the feeding. It is best not to change rations right in the midst of feeding your young stock.

The market animals will be nursed by the mother doe until eight weeks old. This means that you will only have to feed them a month or six weeks after weaning before they are ready for the pot. Of course, they will eat quite a bit along with the doe during the time that they are still nursing, and during this portion of the feeding period they will be getting more or less milk from her along with the other ration.

But if it is at all possible, some milk should be given if only enough to soak up a few pieces of bread.

There are several milk mashes upon the market designed entirely for rabbit feeding and if you cannot have fresh milk in the ration, it would be a good idea to go to a feed store and buy this rabbit mash to feed at noon, or to mix in with your other mash and feed it at the morning feeding.

Use intelligence in handling your youngsters. The feeding of market animals is something that requires a great deal of study and thought. You will find men spending their lives trying to solve the problem successfully. Watch the costs and try to feed as cheap a ration as possible, but at the same time do not sacrifice the elements necessary for the proper development of the stock. You are producing meat to eat and you want to do it efficiently. That is never done by cheating the animal you are feeding.

XIII

FEEDING NURSING DOES

FEEDING NURSING DOES

The feeding of nursing does does not differ materially from the feeding of other rabbits, except as to the quantity and time of feeding. There is also a noon feeding of stale bread and milk included which is not necessary in the case of other adult rabbits.

The care of the nursing doe should not commence when her litter arrives, but should commence from the day that she is bred. By this we mean that during the time the litter is being produced and before birth, the doe must be given the proper elements in her ration to produce these young if she is to bring forth a good litter of healthy youngsters.

Too often the loss of young stock is due to lack of proper feeding during the pregnancy of the doe. This and improper breeding are about ninety per cent of the reasons why young rabbits seem to turn up their feet and die for no apparent reason.

While most adult stock is limited in the amount fed, there should be no limit to the amount fed the pregnant doe. By this we mean that she should have all that she will eat. Do not be foolish and allow her to gorge herself, but if you will watch her carefully you will notice that as the time of delivery approaches she will eat more and more. Let her have what she wants and all that she seems to have an appetite for.

Failing in this you may suffer the sad experience of having the doe eat her young as soon as they arrive. This may be caused by the doe being too fat at the time she is bred, but in the majority of cases it is due to under nourishment and inability to get something to eat as soon as she has delivered her young.

As soon as the doe has been bred, put her in a clean hutch where she will be quiet and free from annoyance during her thirty-day period of pregnancy. Feed her regularly as recommended for adult stock, but be sure to give her a little green food to eat every day.

If you do this you will find that the green food will agree better with the youngsters, later, than if you start in after the doe has commenced to nurse them.

Do not feed a ration of too much concentrates such as grain. Be sure that she has plenty of roughage in the form of hay and plenty of bulk in the form of wheat bran and alfalfa meal. She needs this bulky matter to balance the concentrates and to give frame and bone to the developing youngsters.

Three or four days before the youngsters arrive, commence to feed her stale bread and milk at noon. This is to be sure that she will have plenty of milk when the time of nursing starts. If the doe has a large litter of five or six she will need this help throughout the nursing period as the average doe, even though she be a good milker, does not have enough to adequately supply a large litter.

The balance of the feeding should be as recommended for adult stock with the exception that a doe with litter must have a con-

stantly increasing amount of mash and hay in order to keep herself and litter in good condition. The little fellows will come out of the nest box in about two weeks and commence to nibble at things and want to eat everything they can find, so it will be necessary, then, to increase the amount of the mash. During the third and fourth weeks after delivery the nursing doe and litter will need fourteen ounces of mash every morning and all the hay they will eat at night. During the second month they will need twenty-eight ounces of mash and more hay, and during the third month you will have to feed even more than this. If at this time you are feeding them for market, proceed as recommended in the preceding chapter.

If you wish to develop them for breeding stock, feed them as you do during the second month, that is, all they will clean up quickly at each feeding. It will not be necessary to give the noon feeding of bread and milk, although where it is possible it is highly desirable.

In the matter of hay, let them have all that they will clean up. A hay rack is better for the feeding of young stock and you can keep it full at all times. Otherwise they may not have enough at times and suffer for want of what they need.

The nursing doe, if handled intelligently, will be back in pretty good condition at the end of a week's rest after weaning her stock and she may be bred again. If she has been underfed during the nursing period she will be poor and scrawny and in poor condition to breed. Breeding her when she is run down will have only one result, namely, poor offspring, youngsters that will droop and die by the wayside from no apparent cause whatever. It pays to take care of your breeding does. They are the producers in your herd.

XIV

FEEDING YOUNG STOCK

FEEDING YOUNG STOCK

THERE is not much to be said on feeding young stock that has not already been touched in the other chapters upon feeding. There is a need for serious consideration, however, of the matter of feeding green feed.

It should be remembered that green feed is not only succulent but also a very severe drain on any animal when a change from grain and hay to green pasturage is made. It has a decided laxative effect and often gives cattle, for instance, diarrhœa or the "scours."

With rabbits, green feed has this laxative effect and unless handled intelligently it will serve to throw them off feed and perhaps give the fancier some little trouble.

In the case of young stock, there is a serious disagreement as to the matter of feeding it at all. Some breeders contend that better results are obtained by not feeding green food

to young stock at all, but that it is better to continue them on a strict diet of grain, hay and milk.

Young stock which have been fed green food in an improper state or who have had too much of it, very often suffer from a disorder of the digestive tract which is known as "slobbers." This disease is generally fatal, and while serious in its effects even where not fatal, it is something that should occur very rarely if the stock have the proper ration.

In discussing the feeding of nursing does we mentioned the desirability of feeding the nursing doe some green food each day in order to accustom the youngsters to it in her milk. The reason for this was that if the doe was not fed green food during pregnancy a sudden change to it while she was nursing would cause trouble among the youngsters.

The doe should have a green food every day, but as soon as the young stock commence to run around in the hutch, you will have to remove the doe to another hutch while you

are feeding her the green food, as the youngsters will nibble at it and get into trouble.

Young stock should not have a single bit of green food until they are at least two months old and it should be fed very sparingly even then. It is better to wait until they are three months old to commence feeding the green element in the ration direct to them.

Then start out on dandelions or chicory or small quantities of lettuce and gradually feed more until they are used to it. By feeding a small quantity until they are accustomed to it, there is less likelihood of trouble occurring. And if it does seem to disagree with them it can be stopped until the trouble seems over.

You have to use your observation and your wits in this matter. There is no need to pass up green food entirely for the reason that it may cause trouble. The point is to use it because it is valuable in the ration, but to use it intelligently.

Never feed green food that is partially wilted or wet from rains or dew. Get your

green food after the dew has gone off the grass in the morning or before or after rains. If the grass is wet or the other green food you want to get is wet, pass it up until later in the day. Wet green food has a bad effect on the digestive tract of rabbits of all ages.

There is no objection to feeding thoroughly dried or cured green food; the objection lies in feeding it when it is only partially cured or "heating." It is then somewhat sour and mouldy, especially if it has been piled closely together, and to feed it then will surely cause you to start a burying plot for some of your rabbits.

Roots of all kinds are good for the rabbits and can be used in the winter. They will even eat Irish potatoes when nothing else is available.

The green element in the ration can oftentimes be supplied in the ration by using vegetable tops, especially in the winter, provided the tops are clean and not diseased or frozen. If they are fresh and sweet they will take the

place of carrots or other roots that may be fed then.

Many breeders thoroughly dry and cure their lawn clippings in the summer and put them up in sacks to feed in the winter. This will conserve feed bills for hay and also make a valuable addition to the morning mash, provided they are steamed for a few minutes before mixing. The cured clippings will also be a good thing to feed the young stock in getting them gradually accustomed to the use of green food in the ration.

Rabbits may be fed green food most of the summer and if no disastrous results are apparent it can take the place of hay in the evening feeding, but be sensible. Do not try to support them on weeds and thistles alone. They need grain and mash to balance it.

XV

SELECTION OF BREEDING STOCK

SELECTION OF BREEDING STOCK

We can only touch upon the matter of breeding in a very casual way. It is a subject which has filled many books larger than this one. But in the main the laws of breeding applying to one form of plant life will be found to apply to another. It is certainly true that rabbits are subject to much the same laws as to breeding as are other kinds of live stock.

In the selection of the breeding stock depends all of the chances for future success, for the worth of the parent stock will determine more than anything else the worth of the offspring. Once in a while a litter will be so badly neglected that they will develop into nothing but scrubs, but that is not a fair comparison of the value of good breeding stock.

A pure bred rabbit will eat no more than a scrub. In fact, the scrub is often the best

eater of the two. He certainly is the most expensive. The breeder can generally afford one pure-bred doe, pedigreed if not registered, and there is no reason for maintaining a herd of run-down scrubs which return little or no income on the investment.

As in other forms of live stock, the most important element in selecting the breeding stock is health and constitutional vigor. Without vigor an animal is not a good breeder. That should be self evident to all who know anything about breeding at all.

Pure bred animals generally have health and vigor. That is due to the fact that their blood lines have been carefully preserved and they have had the sort of care and attention which fosters good constitutional vigor and stamina. Do not breed runts. You might as well try to breed mules to eagles and succeed in getting something worth while.

Constitutional vigor is apparent in many ways. The individual animal will have a strong, robust, upstanding appearance. His

eye will be clear and bright. He will seem to be in the very strength of his being. He will be active and full of that quality known as "pep." He is not sluggish and stupid in his movements.

Where you are raising your own young stock, this quality of constitutional vigor is apparent in the animals from birth. There is always one or two in every litter that are larger and better developed than the rest.

They will grow faster, mature faster than those other rabbits born on the same day and having the same care and attention from the start. These are the fellows to set aside for breeding purpose, if you are looking for strong constitutional vigor and want good breeders, regardless of quality.

Of course, these rapid growers often will not make show rabbits, because they are not that kind, but this is no reason why they should be sacrificed in the frying pan. They are worth too much for another purpose, and when you stop to consider that hardly a utility

doe or buck will bring less than $5 each, you can understand why it pays to keep the best of each litter for breeding purposes, either for your own use, or to sell.

Where you are breeding stock for shows or for breeders and are handling pedigreed or registered stock, some attention may be paid to blood lines, but do not make the mistake so many new breeders do. Blood lines are valuable in giving you an index to the individual's possible performance as a breeder, but unless the individual itself is right, forget all about the blood lines. It will save you grief in the long run.

Of course, where your animal is registered with your breed club or with the National Association you have a pretty good guarantee that the individual is all right, but this is not always certain. Some splendid specimens that command the best prizes in the show room and which are ideals of their breed are very poor when it comes to reproducing their own species. Sometimes a second-rate animal

in the show room is the best sire or dam in the whole field.

Why? Largely because the ability to reproduce its own kind is lodged in different degree in different individuals. All live stock breeders recognize this truth and can cite instances from their own experience to prove it. The point is that the individual cannot always be judged correctly in advance or from his show record.

Rather than pay so much attention to show records it is better to find an animal which has a record to producing a number of prize-winners. This animal may not be a winner himself, but he is the kind of a fellow to use in breeding, just the same.

The breeding age of rabbits varies somewhat according to the breed. New Zealand Reds can be bred at seven to eight months. The same applies to Belgian hares and also to Flemish Giants. The Giants, however, had better not be bred until eight months or older.

Some people make the mistake of breeding their stock when too young. This cuts down

on the constitutional vigor of the offspring and also has a bad effect upon the breeding value of the parent stock itself. There is nothing to be gained by trying to hurry things in this fashion and much to be lost.

It is not a good plan to stick to your own bucks too much in selecting the stock that is to be used in breeding. If there happens to be a good stud buck within shipping distance of your rabbitry, it is money well spent to ship your does to this buck, pay a service fee, and get the benefit of the better blood which such an animal will introduce into your stock.

In England and other European countries stud bucks are patronized a great deal more than they have been in this country, for the reason that breeders across the water are wider awake to the possibilities of their use. If you hear of a good buck in your breed which has produced some exceptional stock, leave no stone unturned until he have had your best does bred to him.

In buying breeding stock, always demand that they be registered and that their pedi-

grees be sent you. In this way you know that the animal is free from disqualifications under the Standard for his breed, his age, his ancestry for at least three generations, his weight and other important considerations.

Old stock should not be kept too long as they lose their breeding value after about three years of age. It is better to use them a year or so and then sell them or exchange them for younger stock.

Do not under any consideration use stock for breeding purposes having disqualifications under the Standard for the breed to which they belong.

Disqualifications vary according to the different breeds, and a complete list of them will be found in the Standard for that breed. Such things as drooping ears, wiry or crooked tails, crooked feet, back, etc., are indicative generally of a constitutional defect which would be transmitted to the offspring. The same holds true as to animals which are not true to the color of their breed. While the color plays no important part in the matter

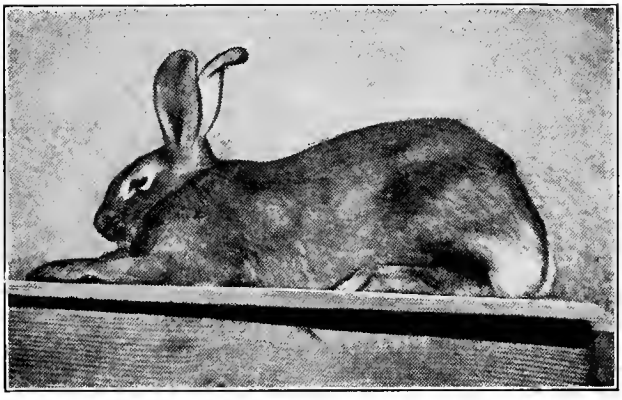
of producing meat animals, it is best to stick as close to the Standard as possible, especially if you start out with registered stock.

Under the chapter on Breeding there is a discussion as to the value of line-breeding and if one starts out with registered stock and practices line-breeding intelligently, there is no reason why the value of the stock should grow less with each generation. But a constant selection of the breeding stock must be kept up in order to make progress all the time.

One can generally get a pretty good idea as to the value of an animal by following these exterior characteristics, but they are by no means a final criterion. It is wise to keep a careful record of the offspring of the respective matings and when you find a doe and buck that seem to produce better offspring than they do when bred to other animals, by all means do not stop breeding them, but get all you can out of the combination. Breeding records as well as intelligent selection of the breeders is necessary to success in picking the breeding stock.

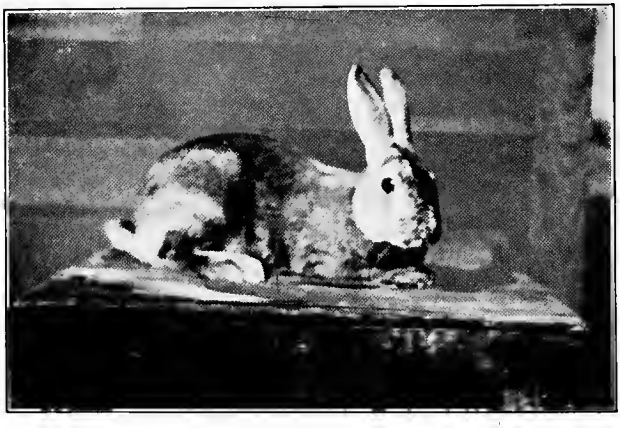
XVI

BREEDING



A Good Utility Breeding Doe.

New Zealand Red.



Belgian Hare Doe Seven Months Old.

Ready to breed.

BREEDING

In breeding rabbits, always take the doe to the buck's hutch and put her inside. If she does not accept service, but fights or runs and squeals, take her out and try her again next day. If the doe proves persistent over a long period of time, it is well to dispose of her for meat stock, as she certainly will not prove to be a desirable breeder.

The doe and buck should be about the same age. By that I mean do not breed excessively young does to old bucks, although you will find some people advocating breeding old bucks to young does and young bucks to old does. There may be something to be gained by this in some instances, but it is far better to breed animals in their prime. In the long run you will get better results from the mating.

As soon as the doe has accepted service, remove her to her own hutch and let her alone.

She should be kept quiet and handled according to the suggestions set out elsewhere. There is nothing to be gained by permitting the doe to have more than one service. I have found that just as large litters come from a single service as from several.

It is best to always watch your does when in the buck's hutch, for then you know for sure as to whether service has been had or not. Some breeders put the doe in the buck's hutch at night and take her out in the morning. This is not only a poor policy but entirely unnecessary. You will soon have a poor buck on your hands if you follow this policy very long.

Haphazard breeding is the reason why so many blood lines constantly dwindle out and why so many breeders of live stock are constantly on the down-hill side of business success. You must have some plan of breeding and follow it out intelligently if you are to succeed.

The old statement that "like begets like"

was never truer than in breeding rabbits. You will get just exactly what you have to start with, unless you have a system of breeding which makes it possible to advance a step at a time at least.

The usual system of breeding is what is known as cross-breeding. By that we mean that unrelated animals are bred together each generation. This system has just one advantage and that is that it keeps up the constitutional vigor and stamina of the offspring to a remarkable degree. There certainly is no danger of your stock "running out," under this system.

But it has its disadvantages as well. It does not preserve the other qualities in the offspring such as type, color, characteristics and station. It merely increases constitutional vigor. It also has the disadvantage of making it necessary to get new males each mating or season. That is not only expensive and troublesome but oftentimes a serious problem for the small breeder. It is, at best,

a haphazard sort of breeding system. It looks merely to the present generation and it does not even lay a good foundation for future generations.

Line-breeding is not in-breeding, as so many people seem to believe. It is true that in-breeding is practiced in the first cycle of operation, but there is not enough in-breeding to cause any harm. Line-breeding is a systematic form of breeding which preserves the excellence and characteristics of the parent stock. In other words, it perpetuates the blood of both sire and dam so that it is not eventually lost as is the case in cross-breeding. By this system of breeding the excellence in modern animals has been accomplished. Line-breeding is practiced by every live stock breeder of repute, for the simple reason that it enables him to make progress in his work.

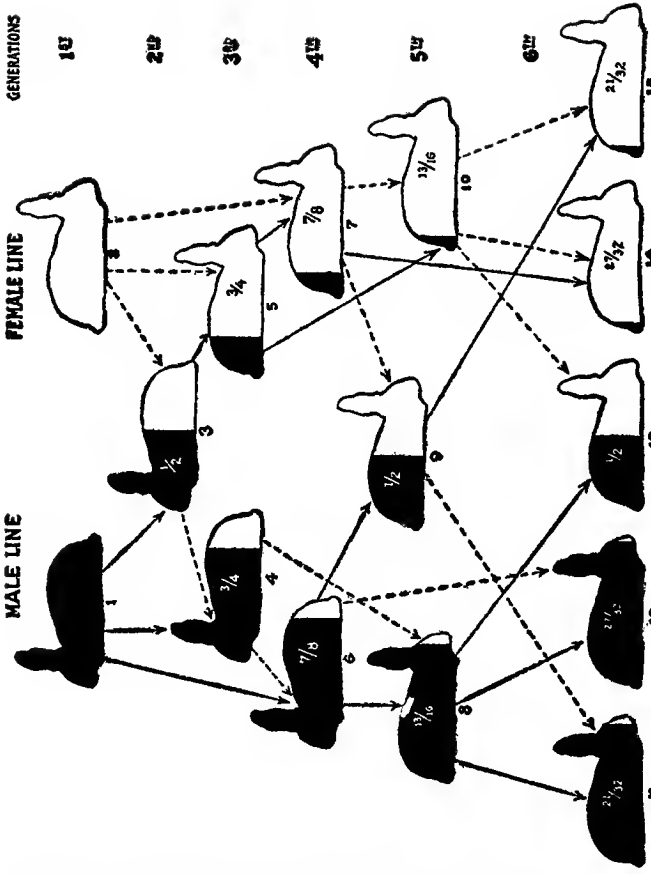
By starting out with two specimens as nearly perfect as possible according to their Standard, they are mated together and the offspring contains just one-half of the blood of

the male and one-half of the blood of the female.

The next mating, the father is mated to his own daughter and the mother to son. This gives a generation having three-fourths of the blood of the original sire and only one-fourth the blood of the original dam. It also gives a generation having three-fourths the blood of the original dam and only one-fourth the blood of the original sire.

You will note that by each mating a point is either gained or lost in the blood of the stock. In fact two separate blood lines are quickly established, a male and a female line. If you will carry out the system as shown in the accompanying chart, you can soon have your males all looking like the original male and the females looking like the original female of the line.

The advantage of the system is such that it achieves this very purpose. It loses nothing and enables the breeder to preserve the characteristics of an especially valuable specimen.



Black denotes the proportion of male blood of original mating in successive generations. White, the proportion of original female blood.

The dotted lines signify that a female is taken from the mating and mated to a male in the mating to which the arrow points. Straight lines signify that a male is taken and mated to a female in the mating to which arrow points.

This chart shows six generations, or two cycles of line breeding.

Do not shun line-breeding because you think it will be injurious to the constitutional vigor of your stock. Such is not true. If you will study the chart carefully you will soon notice that it is not in-breeding in its true sense. And we have only to add that if you want to get anywhere you will have to come to line-breeding. That much has been proved again and again.

Now a few more points about breeding. Do not allow your bucks to serve more than three does a week and it would be better to cut their service down to two. It is as important to preserve the vitality of your bucks as it is of the does.

In carrying the does to the buck's hutch, grasp her by the loose skin back of the ears and place your other hand under her hind quarters. Never carry rabbits by their ears merely because it is easy to do so.

Bucks should not be kept too long. They generally produce inferior offspring after about three or four years of age and it is not good

business to keep them after that. And do not seek to breed them too young. It is just as important to be careful in this respect as it is in not having them too old.

A buck should be at least seven months old and it is better to have them eight or nine months old before attempting to breed from them.

Five days after breeding a doe, take her back to the buck's hutch to test her. If she runs, fights or squeals you may be reasonably sure that she is bred. If she accepts service it is a good indication that she was not in heat at the first breeding. This is done to save time in finding out whether the doe is bred.

XVII

LITTERS AND THEIR SIZE

LITTERS AND THEIR SIZE

We have already had something to say elsewhere about the size of litters, but this is a matter which cannot be too strongly over-emphasized.

The size and the frequency of the litters has everything to do with success in raising rabbits. People often do not stop to take this into consideration.

The rabbit is naturally a very prolific animal. Nature seems to try to compensate for the natural losses due to enemies and other conditions which combine to destroy litters in the natural state by sending a large number of youngsters to the mother doe.

The average litter of the good breeding doe will run all the way from five to thirteen and I have heard of does having as many as fifteen and seventeen at one time. It is nothing out of the way for a doe to have nine at a time.

I had one doe that always brought forth nine little fellows at a breeding.

Of course the size of the litter may be somewhat due to the strength and age of the buck, but at one time I tested a buck by breeding him to two does one right after the other. When the litters arrived there were nine in each litter. The two does were sisters and came from the doe which habitually brought nine to a litter. I do not know whether the trait descended from mother to daughter. That is something for the experts to decide.

But the point is this: While litters are generally large, it should not be taken for granted that Nature intends the mother doe to raise all that come. Many will die in the natural state and old plainsmen tell me that the jack rabbit seldom raises more than a pair to the litter. This also seems to be true of the cotton tail and the brown hare of the Northern woods.

If you want to lose them just as Nature calculated, why try and experiment and see how

many of each litter your doe will raise. Fancy stock should never exceed three does to the litter, and every breeder will tell you this.

Where you wish to save all of the stock from an especially valuable doe it is not necessary to kill off all of the litter. You can use nurse does. By this you breed another doe or two at the same time you do the good doe and then kill the offspring of the ordinary does and give them some of the litter of the good doe to raise. In this way a large litter from valuable stock can all be saved as a rule.

It is useless to argue that you merely want the youngsters for meat stock anyway and have concluded to keep all the youngsters. If you will give one doe six rabbits to raise and then give another one three to raise, the doe with the three rabbits will produce youngsters that will outweigh six nursed by another at the same age. Try it and convince yourself. The more youngsters you permit a doe to raise, the less the size and the slower the development. If you have ever raised pigs

you will understand why this is. It is simply a lack of proper nourishment and nothing else.

The moral is to keep the size of the litters down by selecting on the second or third day after birth, the largest and best youngsters in the litter and destroying the rest.

XVIII

WEANING

WEANING

In the weaning of the young stock is where most beginners meet their stumbling block. Too many people have the idea, fostered by the dishonest claims of certain breeders who are trying to overemphasize the possibilities of the rabbit, that it is necessary for the doe to nurse the young only four weeks. After that they expect to breed her again and have another litter out of the way in another eight weeks.

Do not be so foolish. There is money to be made in keeping rabbits, but it is not to be made that way. In fact, that is a good way to lose all you have invested.

The young rabbit needs the nursing of the mother doe longer than that. It's digestive system is not developed sufficiently at four weeks to enable it to handle the hay and grain which an adult rabbit is eating. One knows

that a baby, for instance, cannot be fed solids until it is twelve months old. Suppose that someone would try to wean a baby from milk entirely at six months. Would it be peculiar if that youngster should pass away?

Yet people are constantly trying to fly in the face of Nature by doing this very thing with their rabbits. There is nothing to be gained in weaning the youngsters sooner than eight weeks. And if you practice this religiously you will find at the end of the year that you have had very little of the infant mortality you hear other breeders complaining so much about.

One of the largest breeders of New Zealand Reds in the country states that he weans the youngsters at seven weeks of age, allows the doe to rest a week, then breeds her again, provided it is in the breeding season, which is late winter to early summer, or in the fall. During the summer months he does not breed at all.

And he never does this unless he is rushed

for time and a little behind on his schedule. With his fancy show stock he does not breed but twice a year and allows the doe to nurse the young for nearly three months. Each doe is allowed to handle only three youngsters. What does this prove to the beginner?

It should at least point out the fact that it pays to go slow in the breeding business and to take your does into consideration. I have seen excellent breeding does absolutely ruined in a season's forcing for some of the wonderful results that some dealers are claiming are possible with rabbits.

It is true that "pigs is pigs" but it is better to take Nature in consideration if you want to build substantially and achieve lasting and permanent success.

The young stock will commence to eat as soon as they get their eyes open and get out of the nest box, but they still need the help of the mother's milk.

By the time they are seven or eight weeks old they will be in a position to handle the

grain and mash in fair shape and you can then successfully wean them. But by all means continue feeding them milk, if at all possible.

The litter is weaned by simply taking the doe away from the youngsters and putting her in a separate hutch. The litter should be left in the same hutch in which they were born. They will be better satisfied and results will be better than if you move them.

XIX

UTILITY VALUE OF RABBITS

UTILITY VALUE OF RABBITS

So MANY extravagant claims have been made for the utility value of rabbits that it is necessary to give some attention to the subject. We have already discussed the prolific tendency of rabbits and mentioned the size of the average litter.

The small back-yard breeder, who probably will keep only a single hutch of the kind recommended elsewhere, which provides room for three does and a buck will naturally want to know just what sort of a production he can count upon from his little rabbitry.

We have already cautioned the beginner not to expect to raise every rabbit that comes in each litter and we want to say again that no rabbit should be compelled to nurse more than six to the litter. We consider that the very limit of possibilities for profitable operation.

If the breeder has three does and one buck, he will have his hutch room full from the start and will have to get rid of the young rabbits, either by eating them or selling them when they are around three months old. If he can provide other hutch room for them and mature them, he will get better results than those which we mention here.

One doe can produce four litters a year without seriously crowding her. But this is not the best practice. We will, however, take it for granted that the fancier wants to get all he can out of her. Four litters with six in each litter will give him twenty-four rabbits in one year from the same mother doe. These, marketed or sold at three months, when they should average about four and one-half pounds each, will give the breeder one hundred and eight pounds of rabbit meat from each doe that he keeps. His little hutch, having three does in it will produce him three hundred and twenty-four pounds of rabbit meat in one year and if he has four does in

the hutch, he will receive four hundred and thirty-two pounds of rabbit meat from this little hutch which only occupies ground space of four by six feet!

This is a very conservative estimate, an estimate which we have not failed to achieve ourselves. It would be even possible to do better provided one had extra hutch room and could mature the young stock.

But indulging in figures is not always the best practice. We are apt to work the stock to death in an effort to get a large return from them. It is, as a matter of fact, possible to produce as many as one hundred and thirty-six rabbits from a single pair in the course of one year, provided all of the offspring is kept and mated as soon as they reach breeding age.

If the stock is to be sold for breeding purposes at an average price of five to ten dollars a head, which is not unusual where good registered stock is used in the beginning, one can easily produce ninety-six rabbits from four does in one year which should have an average

value of between five hundred and seven hundred and fifty dollars.

Do not allow the enthusiastic claims of some people to mislead you. I recently read a statement whereby it was claimed that one could make three thousand per annum from a trio of rabbits. This probably is true in a large sense, provided you waited until you had one hundred breeding does from these original breeders.

XX

FUR FARMING

FUR FARMING

THE constant decreasing supply of fur bearing animals from our forests and streams has caused the world to face for some years a serious shortage of furs. The widespread demand for them for use on articles of apparel, even on summer garments, has made the demand for fur even greater than it was a few years ago, when the normal supply seemed about adequate for the winter garments.

The increasing prices paid and the apparent disregard of certain interests for the survival of our native fur bearing animals caused thousands of people to go into the business of producing furs for market. In Canada there are hundreds of silver fox farms and more are springing up all the time.

The pelt of the native rabbit is practically worthless from a commercial standpoint. It can be used in glue making and the hair is

used in making felt hats, but as an article of fur it is worthless.

The fact that the domesticated rabbit has a thick, tough pelt when properly matured and cured has caused many furriers to turn to it as a source of supply in replenishing the loss occasioned by the smaller catches of wild fur each season.

While the price paid for rabbit pelts is not, at the present writing, sufficient to justify the raising of rabbits for the pelts alone, it is certainly worth considering. Last winter the demand increased greatly for rabbit skins, one house asking for one million more than it had received the year before and offering $1 each for prime skins.

In shipping pelts to these furriers, whose advertisements are to be found in practically every magazine during the fall and winter months, it is not necessary to cure the pelts.

The skin is taken off the rabbit cased, as mentioned elsewhere in this book, and turned flesh side out and placed over a board or skin

stretcher which can be produced of furriers. It is stretched tight and hung up in a shady, cool place to dry. As soon as dried thoroughly, it is put in bundles and shipped to the furrier.

It is not necessary to dispose of your pelts in this way. It is possible to tan the skins in your own home and use them as you see fit. One lady of my acquaintance tanned her own rabbit skins and made herself a set of lovely furs from the pelts of the American Spotted Giant rabbit. It was very hard to tell from that of ermine and made her a very nice set of furs, something that was not only good to look at and as neat as one could buy, but that also excited some envy among her friends who did not dream that she was wearing rabbit furs.

She made the set by tearing up an old set of furs in order to find out how they were made. She used the pieces of the old furs for a pattern in making the new one.

In practically every rabbit show you attend now-a-days you will see an exhibition of furs

made from the pelts of the domesticated rabbit. The American Blue rabbit makes a wonderful set of furs, and muffs that cannot be equalled.

The Black Giant and the White Giant also make excellent furs. The pelts of the Belgian hare and the Steel Gray Flemish make fine collar and cuff ornaments for dresses and suits.

The expense of tanning is very slight. There are a dozen ready made preparations on the market which for about fifty cents will tan as many as a dozen skins with very little work. It is not necessary to give a recipe for tanning, as anyone who keeps rabbits can secure these preparations from the dealer from whom they buy rabbit supplies, or by reading the advertisements in rabbit or pet stock journals. They are much superior to the home made preparations because they take away the drudgery in tanning.

The possibilities of the use of pelts in the home cannot be over estimated. If you could see the fur hat that a California woman

made from the pelt of an American Blue rabbit I am sure that you would be more than surprised. Such articles as this sell in the exclusive fur shops for a fancy figure, concealed under such a high-sounding name as French Blue Fox.

The pelts of the New Zealand Red rabbit make the finest "red fox" furs you ever saw, and about ninety per cent of the Red Fox furs you see walking down the street are made from the lowly New Zealand Red.

The fact that it is possible to can rabbit meat for future use, makes it possible to take a large number of pelts at the proper season without wasting the carcass of the rabbits. The rabbit pelt is prime from November to March and should not be taken off when the hair is rough or when the animal is moulting, as it will be worthless for fur purposes.

The point is that all pelts should be saved and either tanned or sold. They add a nice percentage to the income.

XXI

PREPARING THE RABBIT

PREPARING THE RABBIT

To REALLY enjoy the delicious flavor of the modern, domesticated rabbit one must know how to properly prepare the same for the table. The modern rabbit is a different article of diet from the wild rabbit, and many people really deprive themselves of a great deal of the fine flavor and taste by preparing the domesticated rabbit under recipes that belong entirely to the wild rabbit.

There are certain distinctive characteristics between the two animals which should enable the novice to tell at a glance whether he is purchasing a wild rabbit or one of the domesticated breeds.

The wild rabbit is small, long and slender in shape and the meat is dark throughout. Unless you are living in the West your wild rabbit will seldom weigh more than three or four pounds dressed. Jack rabbits, of course,

exceed this weight, but in all other respects they resemble the common cottontail.

In the case of the domesticated rabbit, however, you will find the dressed rabbit compact and well filled out in shape, the meat white throughout like the breast of a chicken, and the weight running from three pounds up to ten and fifteen pounds dressed. There is a difference in flavor, too, which can be recognized only after one has eaten both animals. The wild rabbit is apt to be strong and rank in flavor. The domesticated rabbit is sweet and juicy and of fine texture.

The difference between the two as an article of food is due to many causes. A great many people have just cause to dislike the wild rabbit and do not care for it as an article of food. They should not fall into the error of believing that the domesticated rabbit is subject to the same objections as the wild rabbit.

In the first place, the domesticated rabbit is one of the most carefully fed food animals in existence. It does not suffer from scavenger

tendencies as does poultry and swine, and its diet is even cleaner than that of the horse.

Due to these traits and to the fact that it makes a rapid growth, the flesh is unusually delicate in texture and flavor.

In selecting a rabbit to fry, try and get one about three months of age. If you can get them younger than this, so much the better, but the usual marketing age is from ten to twelve weeks of age for frys. A three-months-old domesticated rabbit should dress about four and one-half pounds and it is not too old to fry nicely.

In buying dressed rabbits upon the market it is possible to tell the age easily by means of a simple test. By pressing the lower jaw-bone between the finger and thumb one can tell whether the rabbit is old or young. If the bone snaps easily, the rabbit is young; if not, then you know that you have an old rabbit. Another way to tell age is by the weight. A mature Belgian will weigh about eight pounds; a mature New Zealand Red

will weigh nine to ten pounds, while a mature Flemish Giant will often weigh over fifteen pounds.

For roasting or stews, the rabbit is excellent up to one year of age. An old rabbit while not suitable for frying, will have none of the rancid flavor found in old poultry or other food producing fowls or animals. While they can be used up to one year of age for roasting and stews, the best age is at six to eight months, although the rabbit is good eating at any age.

As soon as the rabbit has been dressed, it should be placed in cold water for about two hours. If purchased dressed upon the market, the same treatment will do no harm. In the winter time, a great deal can be added to the enjoyment in eating the rabbit by allowing it to freeze overnight. It can either be hung on a line or placed upon a glass slab for this purpose.

If the rabbit has been purchased alive you will, of course, have to dress it. This is not

a difficult operation, in fact, much easier than dressing a chicken.

The proper way to kill a rabbit is to hold it by the hind legs and strike it a sharp blow on the back of the head behind the ears with a stout stick or club. Then bleed it immediately by inserting a sharp paring knife in its throat. As soon as this has been done, hang it up by the heels and commence to remove the skin.

First, make a cut around the hind feet at the first joint, then cut the skin across the vent to the other hind leg. You now have an opening, after the legs have been freed from the skin, through which you can take the body of the rabbit. This is done by taking the skin off cased; that is, over the head. No more cuts are made in the skin, for, if it is winter, you will want to save it as it is valuable.

You will find that the skin will slip off easily like a glove. As soon as the skin has been removed, slit the abdomen from a point about midway between the hind legs up to

the ribs and remove the intestines. This is a very easy operation. Five minutes after killing the rabbit, it should be ready to place in the cooling water.

As soon as the intestines, have been removed, wash the carcass thoroughly in cold water. It may either be placed in the water to cool whole or cut into pieces ready to cook. The object is to drive out the animal heat quickly. Many people accomplish this by pouring a quart of ice cold water into the vent immediately after making the incision in the skin preparatory to skinning the animal. While desirable, it is not necessary.

If you are killing your own rabbit, the best time to do it is the night before you wish to serve it upon the table. In winter it can be killed several days in advance of time of serving provided it is allowed to freeze. The best time, however, is about ten to twelve hours before the time of serving.

There are many different ways of preparing the domesticated rabbit. It may be served

immediately or it may be salted down in barrels as pork, or it may be canned successfully and then served when needed.

Where one has a hutch full of rabbits in the back yard, however, there is no need of canning the meat as there will generally be a plentiful supply on hand at all times, if the fancier regulates his litters properly.

The following recipes will set the domesticated rabbit off to its best advantage and will help the busy housewife to solve that ever-present problem: "What can I serve that's different?"

Roast Rabbit

Fill the rabbit with a dressing made of bread crumbs, seasoned with salt, pepper, butter, sage and oysters, moistened with hot water. It should then be sewed up after having fastened the legs down to the sides, sprinkled with salt and placed in a roaster. Place some bits of butter or fresh pork on it, add a little water. Use a medium hot oven and bake from two to four hours.

Fried Rabbit

Cut into pieces and sprinkle each piece with a mixture of flour, salt and pepper. Fry like chicken to a nice brown, in lard and butter, taking from thirty to sixty minutes according to age.

Stewed Rabbit

Cut into pieces and place them in a kettle, just covering with water. Let it come to a boil, then skin and add some salt and a large piece of butter. Stew it until dry and done, but be careful not to let it burn. The meat is then removed to a dish, a tablespoonful of flour placed in the kettle, stir well, adding cream and milk, pepper slightly and pour it over the meat.

Another very common way to stew the rabbit is to place the pieces in a kettle, add hot water, small pieces of fresh fat pork, and salt, and place over the fire and cook until dry and done. After allowing it to fry for a short time, place the meat in a dish, put a tablespoonful of flour in the kettle, adding about

a pint of hot water, then pour the whole over the rabbit.

Rabbit Pie

The rabbit is stewed until done, and seasoned well with butter, salt and pepper. The baking pan is then lined with a crust of biscuit dough. Place the pieces of the rabbit therein, add a few pieces of dough, then pour on the broth from the stew and cover the whole with the top crust. Bake in a moderate oven for thirty minutes.

Boiled Rabbit

Skewer head and legs close to the body and place in a kettle with enough warm water to cover, boil until tender. This will depend upon the age of the rabbit. When tender, place in a dish and smother with mushrooms, onions, liver sauce or parsley and butter, whichever is preferred.

Potted Rabbit

Place pieces in a stone jar, filling spaces between meat with bacon and veal, diced a pound each. Also cut the liver of the rabbit

fine and mix it in; add a teaspoonful each of mace, cloves and black pepper and salt. Thin slices of bacon should be placed on top and cover with a lid made of plain paste of flour and water. Set the jar in a pan containing water and bake in slow oven. It can be kept from burning by placing a greased paper over the paste. No water should be put on the meat. When done, set away to cool, then pound the pieces of the rabbit, bacon and veal into a paste, mix in gravy from the bottom when boiled almost dry. More seasoning should be added, if necessary. Press solid into small cups or jugs covering top with melted butter and set away in a cool place.

Spanish Rabbit

Take one large onion, one chili pepper and four medium sized tomatoes and slice in a stew pan and bring to a boil. The rabbit should be cut into pieces and put in as soon as it boils; add one teaspoonful of salt and enough hot water to cover. When done thicken with flour and add butter the size of an egg.

Roast Rabbit and Onions.

A layer of onions should be placed in the bottom of the pan, then a layer of finely cut meat, then another layer of onions and so on until the pan is filled. A double roaster will be found to be the best. No water is necessary as it is furnished by the onions.

While only a few of the many excellent recipes for preparing the domesticated rabbit have been given, they serve to give an idea as to the multitude of uses to which the rabbit may be put in the kitchen. The meat of the rabbit will be found to be economical and at the top of the list in nutritive value.

XXII

SELLING BREEDING STOCK

PLAN NO. III.

Four hutches, two above, two below. Size, 3 x 6 feet.

PRIZE-WINNING NEW ZEALAND RED BUCK.

Valued at $50.00.

SELLING BREEDING STOCK

WITHOUT doubt the best income to be obtained from the rabbit business is in the sale of breeding stock. The breeding stock generally is divided into three classes: (1) Fancy show stock; (2) pedigreed and registered breeders, and (3) utility stock.

The first two classes are closely allied in price and quality, the better animals being registered and pedigreed stock also, but of such quality as to make them worthy of a better price than ordinary Standard bred stock. The utility breeders are generally not subject to registration, having some minor defect, but possessing strong constitutional vigor and size sufficient to make them excellent breeders for meat stock.

The most frequent question that people ask me is, "Where can I sell my rabbits?" Some have commenced to breed the rabbits

before giving thought to this matter and it does not occur to them until they are desperately in need of more room. Others, and they are to be blessed, are agitated by the problem long before they commence to build the first hutch.

One should have a market in mind before commencing the production of anything, else production will be a pure waste.

There are a number of ways in which to sell breeding stock. Generally, it will be possible to sell all that you care to in your own community. I have found that about all people need to know is that you have some rabbits. Before long visitors will drop in to look at them and they will want to buy some. This is especially true if your back lot is close to a main traveled street where your hutches can be seen.

If you can put up a neat sign stating that visitors are welcome to visit your rabbitry so that it can easily be seen from the street, you will be surprised at the number of people who will come in to look at the rabbits.

These visits will invariably lead to sales, if you are enough of a salesman to grasp the opportunities presented.

Then the children in the neighborhood will soon find out that you have bunnies in the back yard and they will spend considerable time looking them over. That is not all. They will tell other people and these people will tell still other people. All of which is good advertising.

Where you wish to get your stock before all of the people in your community, there is no better advertising medium than the classified columns of your daily or weekly papers. A small ad of two or three lines in the Pet Stock column will bring you inquiries and visitors that will soon turn themselves into sales and customers.

Where you have sufficient surplus stock to warrant a small ad in the rabbit journals and pet stock magazines, it will surely dispose of your stock. I have found that there is a tremendous demand, especially for breeding

age stock, and this demand has been constantly increasing during the past few years. The advertiser, if he has anything like the right kind of stock, will invariably turn away orders.

Where you have registered stock or the better show stock one of the best means of advertising the value of your stock is to enter them in the rabbit shows and poultry shows where they have a rabbit department.

People see your stock, have a chance to compare it with that of others, and to admire it. If you are fortunate enough to win prizes, so much the better. That is strong advertising in itself and can be made use of in your advertising literature later.

In selling breeding stock, be fair and square. We have already referred to the dishonest tactics of many dealers and hucksters, who merely buy up rabbits from here, there and everywhere, and sell them out again at a good profit. Too often these gentlemen are willing to stretch the truth a point or two in order

to make a sale. They have worked a great injury to the industry by their ability to "gather in the suckers" and have disgusted many budding fanciers with the whole rabbit business.

Be fair and square as the very cornerstone of your business policy. Do not exaggerate the value of your stock or demand as much money for it as what some breeder with high-class stock is demanding. It is better business policy to underestimate the worth of your stock and undervalue it than to ask too much. There is no advertisement better than a well-pleased customer, and giving him full value for his money and a little more is cheapest in the long run. It builds trade for you.

Do not sell stock that you would hate to have the other fellow palm off on you. Do not, under any consideration, ship diseased stock. This is a crime worse than horse stealing. Practise the golden rule in your business dealings, because the rabbit industry has

black eyes enough. And if the customer is not pleased, promptly refund his money.

Many people will expect you to ship stock C. O. D. so that they can have a chance to see it before paying out their money. While this sort of an arrangement is probably all right if the customer is honest, it is better not to deal with these people. My own experience in several kinds of mail order business shows that there is a vast percentage of people who order on this basis who are not honest. By that I mean that they will seize any sort of an excuse to return the goods without paying for it. Perhaps they have gotten "cold feet" and don't want the goods now, or are short of money, or have gotten over the desire to buy. The result is that the breeder is out express charges both ways and has stock seriously off feed and weight because of the long delay on the road.

Insist on cash before the stock is shipped, but guarantee satisfaction, then live up to it. In this way the honest-to-goodness customer will be protected and you will have protec-

tion yourself. There is no use trying to please the fellow who wants all of the protection on his side and who isn't fair enough to give a rap as to how you are protected. These people are generally the trouble makers and curiosity seekers, anyway, and have no value to you or anyone else as customers.

It is not a wise plan to sell stock less than five months of age for breeding purposes. The reason for this is that no man can tell what the breeding value of an animal is going to be under that age. If you sell them too young they may turn out to be scrubs and that will hurt your reputation. If you happen to sell a prize winner for little or nothing, that hurts you.

Stock should not be shipped in the heat of summer. The express messengers are not as careful of live stock shipments as they should be, and it is not at all out of the ordinary to have a whole shipment smothered in the summer. The best time to ship stock is in the Spring and Fall. Winter shipments can also be carried on successfully, provided you are careful to fix the shipping crates so that the

animals will not be exposed to draughts or the cold too much. This will cause them to catch cold and will lead to the "snuffles."

And this is something that one should take into consideration in shipping the rabbits. In the heated cars and freight stations it is generally hot, stuffy or warm. They are then taken out in the cold air and subjected to a severe change in temperature, all of which is very apt to cause colds. If you have to make shipments in the winter, do all that you can to make it cozy and warm in the crates for the stock. Use muslin across the top and openings to prevent draughts.

Use good-sized crates. Old orange boxes make an excellent shipping crate for a pair. If only one rabbit is to be shipped, one of the compartments of the orange box may be sawed off. But be sure that the floor is solid and does not have any cracks in it so that the rabbits can stick their feet through and get them broken. It is best to have everything so that they cannot get any part of their bodies out of the crate in transit.

XXIII

PEDIGREES

PEDIGREES

A PEDIGREE is merely a systematic record of the ancestry of a given specimen. As originally planned the pedigree system was of great benefit and value in arriving at the breeding value of the individual. Some form of pedigreeing is practised by all live stock breeders, most of whom have a stud book or breed book in which such records are kept.

The official charged with the keeping of these records is generally the secretary of the breed association. In the case of rabbits, several of the different breeds have their own records, but the National Breeders and Fanciers Association, which is made up of all classes of breeders, maintains the breed books which are generally recognized as authoritative.

Pedigree blanks may be purchased of any supply dealer. They are a simple affair,

merely containing a space for the name of the animal, the date of its birth, to whom sold, by whom, and the names of its sire and dam, grandsires and grandams. At least three generations are necessary before the animal can be registered and where it is possible to obtain more of a pedigree, so much the better.

The value of the pedigree is still greater if it contains some sort of a record of the performance of each individual such as show records or breeding records, but it is hard for one to obtain such a minute record from the average breeder. In other branches of live stock breeding you will find more careful records kept along this line.

In keeping an intelligent pedigree record it is necessary to give each rabbit in your breeding hutches a name or a number and to keep a record of the performance of each individual.

There is such a demand for pedigrees at the present time that many breeders are merely "feeding the public" with pedigrees with high sounding names and passing off inferior stock. But where the rules of the National Associa-

tion are followed and the pedigree has something besides a name behind it, it is the most valuable aid known in making progress in the matter of intelligent breeding.

All rabbits should be marked in order to prevent confusion or mistake. There are a number of rabbit markers on the market, ranging from ear tags to stencil tattooing outfits. It is needless to say that a number stenciled in the rabbit's ear with indelible ink is better than anything else. It is there to stay and there is no opportunity of fraud.

Many breeders have their own pedigree blanks printed, and if you buy from a recognized breeder you will get these blanks containing the pedigree of your animals. A pedigree, after all, is worth only the record of the blood in your stock, and if that blood is the best in fame and performance then the value of your pedigrees will be increased manyfold.

But keep a record, else you work around in a circle or in the dark. Intelligent records are the best aid of the careful breeder.

XXIV

DISEASES AND REMEDIES

DISEASES AND REMEDIES

THE domesticated rabbit is not in any sense of the word a sickly animal. On the other hand, it is an extremely hardy individual and seems to stand exposure and ill treatment as well as any animal we know. There are, however, one or two conditions which, if present, will invariably result in disease and expense to you.

Oftentimes the rabbits will die when there is no apparent cause for it. They will seem to be healthy and in the best of condition. The next time you go to the rabbitry you will find them in their nest boxes or in a corner of the hutch dead.

It is not natural for rabbits to drop off in this way without any reason. You can count on it that the average rabbit is too healthy an individual to die so easily without there being a reason for it.

We have already mentioned the fact that dampness is a deadly enemy of rabbits; likewise draughts. It is not too much to mention it again. For from dampness and draughts comes about one-half of the rabbit diseases and disorders with which you will have to contend. The other half will come from improper feeding and care. If the hutches are right and the ration is right and the attention right, you will never need to consult this chapter to find out what is wrong with your stock, provided the stock was right in the first instance.

Overbreeding is a fertile cause of death among young stock. The does have been bred to death and they are so impoverished in strength and vigor that they cannot give birth to properly constituted young. So you may find the answer to your troubles written right here.

SNUFFLES. Snuffles is the most dreaded, persistent and common disease among rabbits. It starts with a cold in the head. The rabbit

sneezes, shakes its head and tries to rub its nostrils with the forepaws. There is a discharge from the nostrils which, at first, is white but later changes to yellow. This discharge is a thick substance and is very annoying to the animal.

There has been a great deal of discussion as to whether snuffles is incurable. Many experts claim that the only remedy after the rabbit has passed from the cold to the snuffles stage is the ax. There are dozens of snuffles remedies on the market. We have tried many of them, but with indifferent success.

Discoveries have lately been made which prove that snuffles is a germ disease, a disease that fastens itself in the blood of the animal. It is not merely a nose disorder, so those remedies which look to a clearance of the nostrils are really working in the wrong direction. The proper way to cure such a disorder is to clear the system, drive out the germ from the blood, and it stands to reason that the nose discharge will cease when that is done.

Snuffles in rabbits is due originally to exposure to diseased rabbits, to draughts or dampness which give the animals a "cold." Unless checked, this soon runs into "snuffles," which is little less than tuberculosis.

Great progress has been made in the past two or three years in the study of this disease. Rabbit fanciers have realized that if the industry was to reach any permanent basis some means of dealing with the disease successfully would have to be perfected. As in every disorder, there is no cure like that of prevention, but it is not always possible for even the most careful breeder to escape this disease.

Within the last two or three years breeders have been experimenting with a serum inoculation for snuffles. This is based upon the same principles as serum inoculation for hog cholera or typhoid inoculation for human beings.

While the writer has not had any personal experience with the serum treatment, it would

seem that it is the only way to successfully combat the disease. It is a germ disease, that much we know, and it would seem that proper inoculation would not only tend to cure the disorder by giving cultures which would aid the rabbit in throwing off the germs, but that rabbits not afflicted would also be rendered immune from future attacks.

Such, at least, are the claims of those breeders who have used the serum treatment. It is now being manufactured by a number of companies which put up the serum and furnish the necessary apparatus and directions so that the breeder can inoculate his own rabbits. While the cost is still a trifle high, it is believed that it will soon be cheap enough to warrant wide-spread inoculation of all rabbits in the immediate future. Surely a good specimen, one that is especially valuable as a breeder or show animal, should be inoculated even though it will cost two or three dollars to do so.

Where local treatment is desired, the afflicted

rabbit should be isolated from the rest of the herd and be placed in a comfortable place where it will be free from dampness and draughts. If possible try to keep it warm and it should be tempted to eat, if possible.

But be very careful not to feed green food to a rabbit in such a condition. It is better to stick to good whole oats and clean hay while treating the rabbit for snuffles.

Ten drops of aconite, which can be bought at any drug store, mixed in a gallon of water, should be given it to drink for a period of two days. This will aid in cleaning out the system. A mixture composed of one-third sanitas oil and two-thirds olive oil will make an excellent application to clean out the nostrils. It is best administered by placing it in a small oil can and forcing it into the nostrils. The best way to hold the rabbit while doing this is to place it between your knees and grasp it by the ears in order to steady its head.

A washing of carbolic soap around the outside of the nose and the inside of the fore-

paws will generally clean out the germs there and should soon end the discharge.

Another very effective local treatment is composed of 1 drachm of oil of eucalyptus and 1 ounce of liquid petroleum. This can be applied best in an atomizer two or three times a day. If colds are taken in hand at once with this treatment, they will generally be cured.

But where the specimen is badly afflicted, run down in flesh, refuses to eat, and the discharge has reached a yellow or green condition, it is best to kill the animal, if it is not especially valuable. It may be and generally is the cheapest policy in the long run.

At any rate, the hutch occupied by an afflicted animal must be thoroughly cleaned and disinfected before other animals are allowed to occupy the hutch. It should be scrubbed in strong soap and water, given an application of lime and carbolic acid and allowed to sun for several days. It should

then be given a good spraying with a strong disinfectant to insure the end of all germs that might be lurking there.

Do not jump to conclusions if your stock happens to sneeze a little. Rabbits do this very frequently when they get dust in their nostrils, especially when eating dusty hay. It is best to examine them carefully, though, when it is noticed in order to be sure. Oftentimes one can discover a cold in its first stages by listening to the animals breathe. If they wheeze, it is time to get busy.

The seasons to be particularly careful are in the fall, winter and spring, especially during changes from one season to another, and during damp and foggy weather.

Slobbers. This is a disease most apparent among young stock. Its symptoms are a discharge around the mouth, generally thin and slimy which dirty the fur and give the animal a decidedly repulsive look. It is caused from improper feeding, often by green food at too early an age, but just as frequently

from eating oats and hay too soon. It is also caused by lack of proper nourishment.

It is a digestive trouble pure and simple, and the first thing that one should do on discovering its presence is to examine the ration and see what is causing the trouble. Once ascertained, it should be removed and steps taken to relieve those already afflicted.

The rabbit should be isolated in a separate hutch and the ration formerly given should be taken away. It should also be denied water for a while. The best local treatment, outside a change of feed, is to rub common table salt on the jaws in the corners of the mouth and such other parts as appear wet. Also put it on the forepaws if they are wet.

The only feed that should be given is bread and milk and crushed oats, rolled oats being better if procurable.

Diarrhœa. Young stock are usually affected oftener than old stock. The disorder is first apparent in the droppings and as soon as they appear to be loose and in long links,

or to stick to the vent so as to give it a plastered effect, isolate the rabbit and change the ration to hay and grain. It is most often caused by feeding too much green food, or feeding it when wet, sour or too old. No green food whatever should be allowed in the ration of an animal under treatment. A change in diet will generally bring the animal back into normal condition. Bran mashes will be found beneficial as a change about twice a week. Where the ration is correct in the first instance there will be no trouble along this line experienced.

CONSTIPATION. If plenty of green food is included in the ration, as recommended elsewhere in this book, you will never be bothered by this ailment. The writer has never had a case of constipation in his hutches. Where the animal is especially ill castor oil is the best remedy, a teaspoonful to the dose.

PNEUMONIA. There is no recognized cure for this disease. It is best to use the ax. Once rabbits are afflicted with lung disorders, they

quickly perish for it is unnatural to them and they seem to be unable to shake it off. While some breeders have so-called remedies, you will save yourself grief and worry by using the ax at once, disinfecting the hutch and putting it down in the profit and loss ledger.

INFANT MORTALITY. This is a disorder that affects the morale of breeders, especially beginners, more than anything else. The youngsters appear to do fine up to a certain age, then they commence to drop off one at a time. The beginner is perplexed, to say the least. He cannot understand it.

Infant mortality is apt to be due to one of several causes, but nine times out of ten it is due to the impoverished vigor of the breeding stock. The breeder that tries to get five and six litters a year from a single doe, and expects her to nurse six or eight youngsters at a time, need not wonder why his young stock seem to drop off without any apparent cause. It is due to lack of constitutional vigor and improper nourishment.

Sometimes it is due to both weakness in breeding stock and improper feeding. One cannot feed unbalanced rations composed of green food and other cheap stuff without expecting trouble in raising your litters. There must be a balanced ration, as stated in the Chapters on Feeding, and the stock must have plenty to eat or they will fail to deliver the goods.

Convulsions often seize young stock and cause death. This is due almost entirely to lack of constitutional vigor or feeding.

Abscesses and Boils. The cause generally arises from bites, scratches or bruises. They may also come in young stock as a result of the parents having been bred while in that condition. The hair must be removed from the skin around the abscess and an incision made in the skin clear across the lumps. If you are careful, the pus bag can generally be removed entire. In the case of boils it will be necessary to squeeze out the pus as the boil ripens. It is best to wash the boil or abscess in a solution of weak peroxide

in warm water, to which have been added two drops of carbolic acid. This is to prevent infection.

PARALYSIS. Generally first noticed by the inability of the rabbit to move hindquarters. Oftentimes they drag the entire hindquarters and sometimes appear to be in great pain. It may be caused by any number of things, some saying that excessive heat will cause it. If caught at first, it is said that a teaspoonful of brandy in a glass of milk will give relief. It is also recommended that the back and hindquarters of the animal be rubbed with a good liniment every other day. A pill made of two grains of camphor and one grain sulphate of iron, once a day, is said to effect a cure.

RED WATER. First noticed by discolored urine. It is generally caused by damp hutches and improper feeding. We have found that feeding plenty of dandelions and drying up the hutches will generally effect a cure in two or three days.

Swollen Teats. Should be treated with camphorated oil or unsalted butter. Must not be rubbed hard or squeezed.

Pot Belly. A very serious disorder, especially in young stock. Caused by improper feeding, which causes the belly to swell to abnormal proportions. Is often fatal. Can sometimes be remedied by cutting green food out of the ration and feeding very sparingly for a while. A pinch of flowers of sulphur in the oats once a day for three days after resuming feeding will generally bring about the desired result.

Ear Canker. Starts with a creamy discharge in the ears and soon ends in a canker in the ears. Often causes the ear to droop and drag. It is caused from dirty hutches and by a tiny parasite which eats the inner lining of the ear. Can be cured in a couple of days by pouring a little camphorated oil in the ear. This will soften the canker and by taking an old pencil or blunt stick and placing cotton on the end saturated in the oil, one can

generally thoroughly clean the ears. Then keep things clean and watch closely to see that all the parasites have been killed and it does not start up again.

Sore Eyes. Caused by colds settling in the eyes. It is first noticed by inflammation and often is followed by a sticky discharge which sometimes closes the lids completely. It is best to bathe the eyes in a weak solution of peroxide in warm water. Another bath that is good is composed of a solution of water, two ounces; sulphate of zinc, four grains; or water, two ounces; boric acid, four grains. Bathe the eyes twice daily.

Sore Hocks. Caused by improper conditions in the hutch. Wet hutches, or those improperly bedded, cause it. However, this trouble is rarely met with under the hutch construction methods of today. It is best to bed the solid floor hutches where it occurs with plenty of sawdust and straw or marsh hay and rub camphorated oil on the sore hocks. Some people have a shoe made of leather which

they place on the affected part to keep it clean and to keep the animal from rubbing off the ointment.

These hints should serve to aid the beginner in meeting the common diseases and disorders that assail the domesticated rabbit. There is one thing which cannot be impressed too strongly upon all who are raising rabbits and that is the necessity of sanitation, good feeding, and prompt, efficient and regular care.

There is only one satisfactory cure of rabbit diseases and that is prevention. If the beginner follows the general advice offered as to feeding, housing and care, he will have little cause to worry about disease in his herd.

XXV

APPENDIX

APPENDIX

Handy Feeding Schedules

Adult Stock.—Morning (Summer):

2½ ounces whole oats
Alternate with mash:
1 part rolled oats
1 part wheat bran
1 part alfalfa meal
1 part soaked beet pulp

Chopped fresh carrots can be used twice a week to take place of beet pulp.

Whole oats soaked overnight will take place of rolled oats, where latter is too high to be profitably used in ration.

Night (Summer):

Clover or alfalfa hay, a liberal handful to each rabbit.

Should have all they will eat up clean. Best to use hay racks and keep them full all the time.

Where hay is before rabbits all the time, feed green food at night, a small handful to each rabbit.

Dandelions, chicory, clover, vegetable tops and lawn clippings are best. Do not feed cabbage.

Water should be given twice a day. Salt should be in the hutches at all times, either rock salt or

regular rabbit salt in spool form, which can be placed on a nail about the height of the rabbit's head on the hutch wall.

Nursing Does.—Feed as for adult stock during pregnancy, but let the doe have all she will eat.

Some green food should be given each day.

A large carrot each morning is a good breakfast for a nursing doe. It can be alternated with oats and mash on different mornings.

Hay should be before the doe at all times.

At noon feed her bread and milk. Stale or hard bread is best. Do not feed mouldy bread. Just enough milk to soak up the bread is all that is required.

Doe should have this every noon during the nursing period, and when youngsters commence to run around quantity must be increased.

Mash: Feed all doe will eat before kindling. Fourteen ounces a day after young are two weeks old and by time they are two months old the quantity should have been increased to twenty-eight ounces every morning.

Doe must have green food, a small handful daily. Remove her to a separate hutch while feeding this, if young are running around in hutch.

Be sure to have plenty of fresh water on hand at all times.

Salt, also.

Young Stock.—Feed largely as directed for adult stock.

Oats should be soaked over night and mixed with bran to take wetness out of them. Use this until they can eat dry oats.

Growing stock must have all that it will eat, but care must be taken not to overfeed.

Green food must be fed with great caution under three months of age. It should be started very carefully and a constant watch kept for disastrous effects. Gradually increase quantities until they are on full feed as for adult stock.

Bread and milk should be given at noon as long as possible. It makes ideal ration for growing rabbits.

Plenty of water and a lump of salt in the hutches are essential.

Read the Chapters on Feeding frequently to keep the requirements constantly in mind.